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Flying Operations

C-130 OPERATIONS PROCEDURES

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This volume implements AFD 11-2, *Aircraft Rules and Procedures*. It establishes policy for the operation of C-130 (includes 109 AW (ANG) LC-130 and 403 AW (AFRC) WC-130) aircraft to safely and successfully accomplish their worldwide missions. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. This instruction applies to Air National Guard (ANG) and Air Force Reserve (AFRC) units.

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This instruction contains references to the following field (subordinate level) publications and forms which, until converted to departmental level publications and forms, may be obtained from the respective MAJCOM publication office:

Publications: AMCI 24-101, AMCR 3-2V2 (S), AMCPAM 55-15, 19, 45 and 46 (AMC).

Forms: AMC Form 41, 43, 54, 97, 148, 196, and 423 (AMC).

★ SUMMARY OF REVISIONS

Incorporates EMC 00-1 message DTG: 131730Z Apr 00 including paragraph 3.6.6.1.1. FDP, paragraph 5.15. runway requirements, paragraph 16.3.8.2. Night VMC Drop Altitude, and numerous administrative corrections in Chapter 20. Changed, revised, or added material is indicated by a ★. Print Change 1 using duplex head-to-head format and post/replace the appropriate page-for-page. Change 1 (C1) affects page 1, 38, 53, 59, 63, 64, 75, 77, 86, 87, 97, 101, 196, 198, 249, 323, 331-343, 346-348.

SUPPORTING INSTRUCTIONS

AFI 11-2C-130 Addenda A, *Aircraft Configuration and Mission Planning*

AFI 11-2C-130V3CL-1, *Briefing Guides and Checklists*

AFI 11-2C-130V3CL-2, *Loadmaster Briefing Guides and Checklist*

AFI 11-2C-130V3CL-3, *Cockpit Crew Tactical Airdrop Checklist*

AFI 11-2C-130V3CL-4, *Loadmaster Tactical Airdrop Checklist*

AFI 11-2C-130V3CL-5, *Navigator Checklist*

AFI 11-2C-130V3CL-6, *NVG Flight Crew Checklist*

AFI 11-2C-130V3CL-7, *NVG Cockpit Crew Airland Checklist*

AFI 11-2C-130V3CL-8, *NVG Loadmaster Airland Checklist*

AFI 11-2C-130V3CL-9, *Cockpit Crew MAFFS Checklist*

AFI 11-2C-130V3CL-10, *Loadmaster MAFFS Checklist*

AFI 11-2C-130V3CL-11, *Navigator's Grid Checklist*

AFI 11-2C-130V3CL-12, *Search and Rescue Checklist*

AFI 11-2C-130V3CL-13, *Aeromedical Evacuation Crew (AEC) Checklist*

AFI 11-2C-130V3CL-14, *Preflight and Postflight AE Checklist*

Chapter 1--GENERAL INFORMATION 24

1.1. General.....	24
1.2. Applicability	24
1.3. Key Words Explained.....	24
1.4. Deviations and Waivers	24
1.5. Supplements.....	25
1.6. Requisitioning and Distribution Procedures	25
1.7. Improvement Recommendations	25
1.8. Definitions	25
1.9. Aircrew Operations Reports	25

Chapter 2--COMMAND AND CONTROL 26

2.1. General.....	26
2.2. Execution Authority.....	26
2.3. Aircraft Commander (AC) Responsibility and Authority.....	26
2.4. Mission Clearance Decision	27
2.5. Aircrew Responsibilities.....	27
2.6. Operational C2 Reporting	27
2.7. Mission Commander.....	30
2.8. C2 Agency Telephone Numbers	31
2.9. Close Watch Missions	31
2.10. Posse Comitatus	31

3.5.1.3. Crews in stage over 48-hours.

3.5.1.4. Crews in sequence of arrival time.

NOTE: If a stage crew is forced to return to crew rest because of a mission delay or abort, that crew becomes first out when legal for alert.

3.5.2. Mechanical Stage. Mechanical stages may be established by the C2 agency where no crews are staged. The stage is created when a mission is delayed or aborted and the crew goes into crew rest. Mechanically staged crews become first out in the same direction when legal for alert. An inbound crew may be bumped from the mission even though they have sufficient duty time remaining to complete that mission. **EXCEPTION:** ARC crews flying unit-equipped aircraft should not normally be mechanically staged.

3.6. Crew Duty Time (CDT) and FDP. CDT is the amount of time an aircrew may perform combined flight and ground duties. FDP is the time period between mission reporting and final aircraft engine shutdown. For planning purposes, CDT normally consists of FDP plus 45-minutes, not to exceed the maximum CDT. When post flight duties exceed 45-minutes, CDT is FDP, plus the time required to complete the post-flight related duties.

3.6.1. CDT and FDP both begin one hour after alert. **EXCEPTIONS:**

3.6.1.1. Self-alerts: CDT and FDP will begin at scheduled or established mission reporting time.

3.6.1.2. ALFA standby: CDT and FDP will begin when the crew is told to launch.

3.6.1.3. BRAVO standby: CDT and FDP begin when the crew shows for duty.

3.6.1.4. Crewmembers performing other duties prior to flight related duties: CDT and FDP begin when reporting for other duties.

3.6.2. The length of FDP will be established by the mission directive or C2 agency when the crew shows for duty and is briefed for the mission. FDP will not be extended to an augmented day after a basic FDP has begun regardless of crew composition. FDP will not be based on crew composition, but rather on mission requirements.

3.6.3. FDP ends at engine shutdown following completion of final mission segment.

3.6.4. Normally, CDT ends 45-minutes after engine shutdown at the end of the mission. If any crew member must perform mission-related duties beyond 45-minutes, CDT does not end until that crew member completes these duties. These duties include up or downloading, servicing, debriefing, mission planning, etc. Except when authorized by unit commanders at home station or deployed locations, crewmembers will not be used for mission related duties supporting other missions; i.e. to preflight other aircraft. Post-mission duties will not exceed maximum CDT.

3.6.4.1. At home station or deployed locations, unit commanders may authorize crewmembers be used for post mission duties supporting other missions; i.e., loading supervisors for other aircraft. These duties will not exceed 12-hours of CDT.

NOTE: FDP includes both military duty and civilian work and begins when the reporting for the first duty period (military or civilian).

3.6.5. Basic Crew FDP:

3.6.5.1. Maximum FDP for basic crew is 16-hours. The basic FDP is 12-hours without a fully operative autopilot.

3.6.5.2. Maximum CDT for a basic crew is 18-hours.

3.6.6. Augmented Crew FDP:

3.6.6.1. Maximum FDP for an augmented crew (operational mission only) is 18-hours. FDP is 16 hours without a fully operative autopilot. Only the pilot portion of the crew needs augmentation when the autopilot is inoperative.

★3.6.6.1.1. Maximum FDP for nuclear airlift missions is 16-hours. Twelve hours without a fully operative autopilot (regardless of crew augmentation).

3.6.6.2. Basic crews will not be augmented after FDP has started. (see paragraph 3.2.2.)

3.6.6.3. Maximum CDT for augmented crews is 20-hours.

3.6.7. Training, Tactical, and functional check flight/acceptance check flight (FCF/ACF) FDP:

3.6.7.1. Maximum FDP for training, tactical, and FCF/ACF missions is 16 hours. FDP is 12 hours without a fully operative autopilot.

3.6.7.2. Events (i.e., FCF/ACF, transition, or tactical) must be completed during the first 12 hours of the FDP.

NOTE: This requirement does not prevent missions from continuing to home station or deployed staging base once training events are accomplished (not to exceed 16-hours with a fully operative autopilot).

NOTE: AFRC and ANG crews may perform training, tactical, or FCF/ACF missions provided time from start duty does not exceed 16-hours.

3.6.8. If autopilot fails after departure, consider mission requirements and determine best course of action to preclude further mission delays due to reduced FDP. Best course of action may include divert to an airfield with maintenance capability. Contact C2 agencies, coordinate intentions, and comply with the preceding limitations.

3.6.9. Deadhead Time. Duty time for crewmembers positioning or de-positioning for a mission or mission support function.

3.6.9.1. Crewmembers may perform primary crew duties after deadheading if they will not exceed a basic FDP for the mission to be flown beginning at reporting time for the deadhead flight.

3.6.9.2. Crewmembers may deadhead following primary crew duties if they will not exceed a 24-hour CDT beginning at reporting time for primary crew duties.

3.6.10. CDT/FDP Extensions. See AFI 11-202V3, *General Flight Rules*, and the following: MAJCOM/DO are waiver authority. For crews flying AMC-directed missions, AMC/DO is the MAJCOM/DO waiver authority as specified above (contact the TACC to request the waiver). Exception: The 89 AW/CC is delegated waiver authority for CVAM-directed special assignment airlift missions (SAAM).

3.6.11. Flight examiners administering evaluations will not exceed an augmented FDP.

Item/System	Installed	Operational	Remarks/Limitations/Exceptions
NDB	2	1	
TACAN	2	1	
Radar	1	0	Required if thunderstorms or hazardous conditions that can be detected by airborne radar are forecast or exist along route of flight.
H3 (if equipped with two radars)	2	0	Pilot's radar required for flight if known or forecast thunderstorms are expected along the route of flight or at night.
IFF/SIF	1	0	As required for ATC and mission requirements. (See NOTE 1)

NOTE 1: Perform a ground check of the IFF before takeoff, using either the self test or ground radar interrogation. If self test is unacceptable and radar facilities do not permit a ground check, you may take off if the IFF was operational on the previous mission. Aircraft will not depart with an IFF known to be inoperative. **EXCEPTIONS:** Formations must have at least one operational IFF per element. Single aircraft must have the approval of ATC and the MAJCOM DO/XO.

★Table 4.14. Aircraft Exterior/Interior Lighting.

Item/System	Installed	Operational	Remarks/Limitations/Exceptions
Landing Lights	2	1	One may be inoperative provided the taxi light on same side is operational.
Taxi Lights	2	1	One may be inoperative providing the landing light on the same side is operational.
Formation Lights	9	0	Not required for daylight operations. Two lights per wing will be operational for night formation flights.
Navigation Lights	6	3	For night operations, the left and right wingtip Nav lights must be operational in addition to one of the white lights on the tail cone.
Anti-Collision/Strobe Lights	2	2	
Wing Leading Edge Lights	2	0	
Primary Instrument Cockpit Lighting	1	0	(IAW AFI 11-202V3)

Table 4.15. Doors and Ramp Systems.

Item/System	Installed	Operational	Remarks/Limitations/Exceptions
Ramp and Ramp Locking System	1	1	<p>Warning light, latching mechanisms, and locking system will be operative for pressurized flight. Aircraft will not be released for flight with a malfunctioning ramp lock system, with cargo on the ramp. Aircraft may continue to destination if ramp locks malfunction in-flight. Cargo ramp will not be operated in flight, with cargo on the ramp, with malfunctioning locks. Repair lock malfunction or remove cargo from ramp prior to continuing flight operations. Do not pressurize the airplane if the ramp locks fail to lock.</p> <p>Unpressurized flight, with no cargo on the ramp, may be performed with a cargo ramp lock malfunction when mission requirements dictate.</p>
Aft Cargo Door and Locking System	1	1	Pressurized flight may be performed with a aft cargo door lock malfunction when mission requirements dictate.
Crew Entrance Door and Warning Light	1	1	

5.12.4.2. As soon as possible after a "Time Out" has been called, the aircrew will take the following actions:

5.12.4.2.1. Safety permitting, stabilize the aircraft.

5.12.4.2.2. The initiating crew member will voice his or her concerns to the crew.

5.12.4.2.3. The AC will provide all other crewmembers with the opportunity to voice inputs relative to the stated concerns.

5.12.4.2.4. After considering all inputs, the AC will direct the aircrew to continue the current course of action or direct a new course of action.

NOTE: The AC is the final decision authority.

5.13. Transportation of Pets. Transporting pets (dogs and cats) on aircraft in conjunction with the sponsors permanent change of station is authorized. Other pets or animals are normally prohibited, but may be moved according to DOD-R 4515.13R.

5.14. Alcoholic Beverages. MAJCOM DO/XO may authorize the dispensing of alcoholic beverages.

★5.15. Runway, Taxiway and Airfield Requirements; Wind Restrictions; Runway Condition Reading (RCR) Limitations: A current landing zone (LZ) survey (as specified in AFI 13-217) is needed prior to using other than hard-surfaced runways or taxiways, unless operations are approved in the ASRR. MAJCOM DO may waive runway/taxiway width requirements. Minimum runway and taxiway widths for normal and tactical airland operations are depicted in **Table 5.1**.

Table 5.1. Runway/Taxiway Width Requirements.

Runway Operations	Width
Normal Operations	80 Feet/25 Meters
Tactical Assault Operations	60 Feet/19 Meters
Taxiway	
Normal and Tactical Assault Operations	30 Feet/9 Meters

★5.15.1. For mission accomplishment, if approach end overruns are available and stressed or authorized for normal operations, they may be used to increase the runway available for takeoff. Departure end overruns (if stressed and authorized) may also be used for landing, if needed. Consult with HQ AMC/DOVS (Airfield Suitability).

5.15.1.1. Do not land on (touchdown on) approach end arresting cables (does not include recessed cables). If the aircraft lands before the cable, the crew should contact the tower to have the cable inspected.

5.15.1.2. Do not takeoff or land over an approach end cable that has been reported as slack, loose, or improperly rigged by NOTAM, automated terminal information service (ATIS), or ATC.

5.15.1.3. Operations are authorized on runways where BAK-12 systems are installed, with an eight point cable tie-down system, without regard to the Dash-One Caution. When operating from runways equipped with other types of systems, or if it is unknown if the BAK-12 system includes eight point tiedowns, aircrews should recognize the increased risk of damage to the aircraft.

5.15.2. Aircrews and planning agencies will contact HQ AMC/DOVS for all questions pertaining to airfield weight bearing capability and will review the ASRR prior to all off-station operations. HQ AMC/DOVS is the waiver authority for all airfield restrictions on AMC missions. Waivers must be obtained prior to mission execution. Although a waiver may be approved, the AC is still responsible for determining airfield suitability based upon operational need. See the ASRR for airfield certification requirements.

5.15.3. Runway Length for Takeoff and Intersection Takeoffs. Normally, takeoffs will be initiated from the beginning of the approved usable portion of the runway. The decision to make intersection takeoffs rests solely with the AC.

5.15.3.1. Intersection takeoffs may be accomplished provided the operating environment (i.e., gross weight, obstructions, climb criteria, weather, etc.) will allow a safe takeoff and departure.

5.15.3.2. When less than the entire runway is used, takeoff and landing data computations will be based on the actual runway remaining from the point at which the takeoff is initiated.

5.15.4. Runway Length for Takeoff. Minimum runway length for a normal take off is critical field length.

5.15.4.1. Runway Length for Landing. Minimum runway for a normal landing is landing distance from 50 feet over the threshold, plus the runway visual range (RVR)/visibility correction factor specified in **Table 5.2.**

Table 5.2. RVR/Visibility Correction Factors.

RVR (Visibility)	Add to Landing Distance
Less than 40, (3/4)	1,000-feet.
Equal to or greater than 40, (3/4)	500-feet.

5.15.5. RCR Limitations. When no RCR is available, refer to the flight manual for standard ICAO conversions based on general runway condition. Be conservative when dealing with unknown conditions (e.g., FOBs, unpaved runways). Normally, RCR values are not reported for taxiways and ramps. During periods of reported low RCR, the taxiways and ramps may have an even lower RCR than reported for the runway. Consider the runway surface wet when water on the runway causes a reflective glare.

5.15.5.1. RCR and Runway Surface Condition (RSC). The performance charts used to determine braking action are based on concrete runways. The RCR values for the following runway surfaces in **Table 5.3.**, are estimates based on operational experience and should be used only as a guide.

Table 5.3. RCR Values.

TYPE SURFACE	RCR (DRY)	RCR (WET)
Asphalt	23	12
Aluminum Matting	20	10
M8A1/With Anti-Skid (PSP)	20	8
M8A1/Without Anti-Skid (PSP)	13	3
Clay	16	5
Crushed Rock	16	5

5.20.1.1. Bird Watch Condition Low - No operating restrictions.

5.20.1.2. Bird Watch Condition Moderate - Initial takeoffs and final landings allowed only when departure and arrival routes will avoid bird activity. Local IFR/VFR traffic pattern activity is prohibited.

5.20.1.3. Bird Watch Condition Severe - All takeoffs and landings are prohibited. Waiver authority is local OG/CC or equivalent. Parent MAJCOM/DO waiver is required to operate at airfields not controlled by the MAF.

5.20.2. Make every effort to not schedule takeoffs, landings, and low-levels from one hour before to one hour after sunrise and sunset during the phase II period. In addition, significant bird hazards will be published in FLIP GP and the IFR Supplement along with the associated airfield operating hour restrictions and avoidance instructions.

5.20.3. All AMC units will have a BASH Reduction Plan in accordance with AFI 91-202. AMC tenant units will work with the host base to create a plan.

5.20.4. When operating at airfields where no BASH program exists, AC's have the authority to delay takeoffs and arrivals due to bird condition. Coordinate actions through appropriate C2 authority.

★5.20.5. The aircrew should consider bird migratory patterns during the enroute portion of the mission to help minimize the potential of an in-flight bird strike. The Bird Avoidance Model (BAM) on HQ AFSC/SEF www site:<http://www-afsc.saia.af.mil/AFSC/Bash/home.html> provides BASH information including regionalized CONUS bird migration patterns, PFPS software overlay, and the latest news. See AFPAM 91-212, *Bird Aircraft Strike Hazard (BASH) Management Techniques*, for additional information.

5.21. Functional Check Flights (FCFs) and Acceptance Check Flights (ACFs). FCFs and ACFs will be performed according to T.O. 1-1-300 and applicable MAJCOM instructions. Additional guidance can be found in T.O.s 00-20-6, and 1C-130(B)-6CF-1.

5.21.1. Terms and Abbreviations.

5.21.1.1. FCFs are performed after accomplishing inspections or maintenance to assure the aircraft is airworthy and capable of mission accomplishment.

5.21.1.2. ACFs specify guidelines for accepting depot aircraft and to determine compliance with contractual requirements (e.g., C checks).

5.21.2. FCF Restrictions.

5.21.2.1. In accordance with T.O. 1C-130X-6CF-1, conditions requiring an FCF include (but are not limited to) major retrofit modifications, removal or replacement of moveable flight control surfaces, major repairs that would affect the flying characteristics of the aircraft, adjustment, removal or replacement of major components of the flight control system for which airworthiness cannot be verified by maintenance operational checks, or removal or replacement of any three engines.

5.21.2.2. The OG/CC is responsible for the wing FCF program. The OG/CC may waive a complete FCF and authorize an FCF to check only those systems disturbed by maintenance, inspection or modification. Additional guidance should be published in the local chapter of these instructions.

5.21.2.3. Check flight will be conducted within the designated check flight airspace of the base from which the flight was launched except when the flight must be conducted under specific conditions, not compatible with local conditions and area restrictions.

5.21.2.4. The decision to approve a combined FCF and ferry flight is the responsibility of the MAJCOM/DO (ANG/DO for ANG mission).

★5.21.2.5. FCFs will be accomplished by the best qualified aircrew. The AC and the FE will be instructor or evaluator qualified and designated (in writing) as "FCF-qualified" by OG/CC.

5.21.2.6. FCFs will normally be conducted in daylight, VMC conditions. However, the OG/CC may authorize a flight under a combination of VFR, IFR, and "VFR on Top" conditions. The flight will begin in VFR conditions. If the aircraft and all systems are operating properly, it may proceed IFR to penetrate cloud cover to VFR on top to continue the altitude phase of the flight.

5.21.2.7. FCF aborts: If a malfunction occurs during an FCF, which is not related to the condition generating the FCF, and the original condition operationally checks good, the aircraft may be released for flight.

★5.21.2.8. OG/CC or deployed mission commander may authorize temporary waivers to these FCF procedures for aircrew qualification when operationally necessary. Permanent waivers require MAJCOM/DO approval.

5.22. Participation in Aerial Events. See AFI 11-209, *Air Force Participation in Aerial Events*, and the appropriate MAJCOM supplement and the following: Aerial events must be sanctioned and individually approved by the appropriate military authority, and dated with the Federal Aviation Administration (FAA). AFI 11-209 identifies events sanctioned for support, and specifies the approval authority for each type. In addition, it stipulates that units participating in aerial events will ensure activities are coordinated with the FAA through the regional Air Force representative.

5.23. Hand-held GPS (not required for aircraft equipped with integrated GPS). Carry a hand-held GPS on every mission, including local and off-station training missions. **EXCEPTION:** A Hand-held GPS is not required for a local mission without passengers). The hand-held GPS, when operating properly, can provide useful information; however, it must never be used as the primary IFR navigation source. Use of any hand-held GPS receiver that has not been EMI certified is restricted to operations above 10,000 feet AGL only **NOTE:** MAJCOMs maintain a list of Hand-held GPSs certified for operations below 10,000 feet AGL). Any type of Hand-held GPS may be used above 10,000 feet unless interference is noted with any aircraft system. The actual use of the Hand-held GPS rests with the aircrew. Its usage must never jeopardize safety. When aircrews deploy with or without an aircraft (stage crews), each crew will deploy with a hand-held GPS. This would include KLX-100, PLGR, Garmin and Magellan GPS units.

5.23.1. Before using the hand-held GPS in-flight, aircrew members must receive training and aircraft must be capable of supporting the Hand-held GPS equipment.

6.15.1. Computer Flight Plan (CFP) Use. Contracted CFPs or CFPs available from DET 1, AMC CPSS are the official sources of performance, navigation, and climatic data, including enroute wind information. If stand-alone computer based plans are used, each mission segment should utilize best wind data available. Use only validated CFP for flights involving C-130 aircraft. See AMCI 11-208, *Tanker/Airlift Operations*, Chapter 8 for addition information.

6.15.1.1. Flight crews may manually compute flight plans, use mainframe based or contracted CFPs, or utilize CFPs provided by the staff. CFPs should be utilized to the maximum extent practical. The flight crew has final responsibility for accuracy of the flight plan used.

6.15.1.2. CFPs will be verified by the flight crew for route of flight and fuel computation accuracy prior to departure. Pass any flight plan discrepancies to the TACC Flight Planning Office. Identify inaccurate CFP winds by special report if the average wind for a route segment exceeds either 30 degrees error in direction or 25 knots in speed. When reporting incorrect flight plans include both the CFPI and the plan number.

6.15.2. The flight engineer will complete AF Form 4064, **C-130 Takeoff and Landing Data Card** and AF Form 4063, **Mini C-130 TOLD Card**, as specified in **Chapter 12**. Pilots and copilots will use AF Form 4063, **Mini C-130 TOLD Card**. A pilot crewmember, or additional flight engineer, will cross-check the AF Form 4063, **Mini C-130 TOLD Card** for accuracy by using the performance manual or approved tabulated data. As a minimum, the person checking the data will:

6.15.2.1. Verify gross weight independently from the AF Form 4063, **Mini C-130 TOLD Card**.

6.15.2.2. Cross-check air minimum control V_{mc} (one engine inop in ground effect), takeoff, and landing speeds.

6.15.2.3. Review and compare the computed distances or ground roll with the actual conditions and runway available.

6.16. Departure Planning: Use AFI 11-202V3, AFMAN 11-217, this chapter and the appropriate MAJCOM supplement.

6.16.1. Gross Weight (GW). Ensure that the aircraft does not exceed the maximum GW, zero fuel weight, or center of gravity limitations specified in the aircraft flight manual. GW may be further restricted by operating conditions such as, icing, temperature, pressure altitude, runway length and slope, aerodrome weight bearing capacity, departure maneuvering, required climb gradients, and obstacles.

★6.16.1.1. Takeoff GW must not exceed that which would, in the event of an engine failure, lower the rate of climb to less than a 2.5 percent climb gradient (152-feet per NM).

6.16.1.2. Critical Field Length (CFL). Takeoff GW must never exceed that which would require CFL in excess of the runway available for a normal takeoff. In some cases, a minimum altitude is required at the Departure End of Runway (DER). This is also known as a screen height. The runway available must exceed CFL by at least 50-feet for every 1 foot of altitude required at DER. Use the following as a guide to determine DER requirements. Required screen heights depend on the agency that wrote the standard instrument departure (SID) (identification in parentheses immediately to the right of the SID chart reference number).

6.16.1.2.1. SIDs. Required DER heights depend on the agency that wrote the SID.

- 6.16.1.2.1.1. USAF, US Navy (USN), or US Marine Corps (USMC) SID: Zero (0)-feet.
- 6.16.1.2.1.2. US Army and FAA SID: 35-feet.
- 6.16.1.2.1.3. Foreign Civil or Military SID (must be an ICAO member nation listed in FLIP GP): 16-feet.
- 6.16.1.2.2. Radar Vector, Published IFR Departure Procedure or VFR Departures.
 - 6.16.1.2.2.1. USAF, USN, or USMC Airfield: Zero (0)-feet.
 - 6.16.1.2.2.2. US Army or FAA Civil Airfield: 35-feet.
 - 6.16.1.2.2.3. Joint Use Airfield within the United States: 35-feet.
 - 6.16.1.2.2.4. Foreign Civil or Military Airfield (must be an ICAO member nation listed in FLIP GP): 16-feet.

NOTE: DER requirements for departures other than those listed above vary. There is no standard or easy way for crews to determine required DER height (or screen height) at some airfields. Therefore, when using departures other than those listed above, plan to cross the DER at 35-feet (minimum) unless you can ascertain a different requirement from the appropriate authority.

NOTE: If aircraft performance will not allow crossing the departure end of runway at required DER, the proposed route of flight must be examined using a current aeronautical and terrain charts to ensure aircraft performance is sufficient to clear ALL obstacles. The crew must advise the ATC agency involved that they cannot meet the SID requirement.

6.16.2. IFR Departure Routing/Climbout Performance (also see Paragraph **6.17.5** through **6.17.8**). Appropriate terrain charts should be reviewed prior to departure. Regardless of the type of departure flown (SID, Specific ATC Departure Instructions, IFR Departure Procedure, or Diverse Departure), the aircraft must be able to achieve the published climb gradient (for the runway to be used) with all engines operating, and be able to vertically clear all obstacles within the climbout flight path with one engine inoperative (**EXCEPTION:** see Paragraph **6.17.6**). If no minimum climb gradient is published and you are able to compute all engine operating data, use 200-feet/NM minimum with all engines operating and 152 feet/NM minimum with one engine inoperative. If a higher required climb gradient is published or required for radar vectors, use that climb gradient as the minimum with all engines operating, and use that climb gradient minus 48-feet/NM as the minimum with one engine inoperative. This only works at fields having an instrument approach. If the field does not have an instrument approach, then no obstacle survey has been conducted. Therefore, you don't know if 200/152 feet/NM is sufficient. **NOTE:** At airfields with no instrument approach, an IFR departure is NOT AUTHORIZED.

NOTE: SIDs will not depict obstacles if a 2.5 percent climb gradient is sufficient to clear them (see **Figure 6.2**).

6.16.2.1. SIDs. OPRs for SIDs are identified on each individual SID. They are either FAA, United States Army (USA), USN, USMC, or USAF. On non-DoD SIDs, the agency that wrote the SID will also be identified (in parentheses immediately to the right of the Chart Reference Number). For example:

6.16.2.1.1. SL-000.00 (USA) would indicate a DoD SID where the US Army is both the OPR and the agency that wrote the SID.

6.16.2.1.2. (USAF) SL-000.00 (RAF) would indicate a non-DoD SID where the USAF is the military department that requested publication and serves as the OPR, but the Royal Air Force is the agency that wrote the SID. Use the agency that wrote the SID to determine the required screen height.

6.16.2.2. Published IFR Departure Procedures. Published IFR departure procedures are available at some civil and military fields to assist in avoiding obstacles during climb to the Minimum Enroute Altitude (MEA). Airfields with published IFR departure Procedures will have the inverted triangle with a white "T" symbol printed on the approach plates and SIDs. When using Jeppesen publications, IFR departure procedures will be on the airfield diagram page which are typically on the reverse side of the airport's first approach. A climb gradient and/or specific routing and/or alternate takeoff weather minimums will normally be specified with a published IFR departure procedure. When flying a published IFR departure procedure, depicted routing and climb gradients must be flown to avoid obstacles. The alternate takeoff weather minimums allow aircraft to depart with minimum ceiling and visibility. USAF aircrews are not authorized to use these alternate takeoff weather minimums.

6.16.2.3. Specific ATC Departure Instructions (Specific climbout instructions or "radar vectors"). Crews may depart via specific ATC departure instructions, however, the SID prescribes a safe route of flight for a climb to the enroute structure, while minimizing radio communication. Even if you plan to depart via specific ATC departure instructions, the crew should still have the SID on board (if published).

6.16.2.4. If the airport does not have an authorized IFR departure method, the weather at takeoff must permit a VFR climb to an IFR MEA, an appropriate IFR cruising altitude, or an altitude where radar vectors can be provided.

6.16.3. VFR Departures (VFR Flight Plan).

NOTE: VFR departures will not be flown in lieu of obstacle clearance planning.

6.16.3.1. VFR departures require detailed planning to ensure obstacles and high terrain are avoided. Conduct VFR operations only when required for mission accomplishment.

6.16.3.2. The minimum climb gradient for VFR departures is determined by ensuring the following conditions are met:

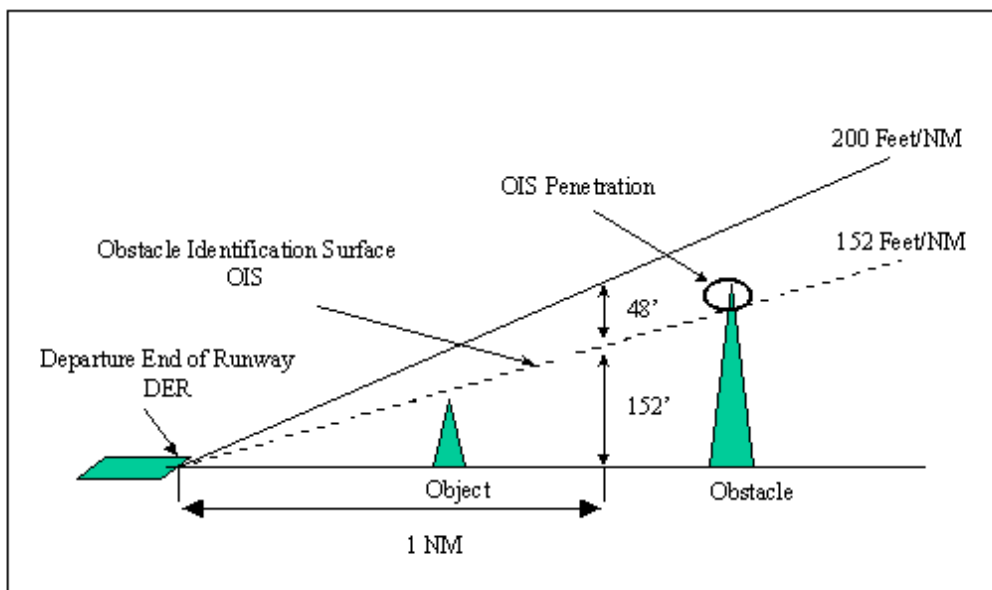
6.16.3.2.1. Four-engine climb gradient capability ensures obstacle avoidance along the planned departure route.

★6.16.3.2.2. Engine-out climb gradient capability ensures that in event of an engine failure, the planned departure or emergency return route provides obstacle avoidance. Even when obstacles are not a factor, the aircraft must be capable of climbing at a rate of at least 152-feet per NM on three engines at obstacle clearance speed.

6.17. Obstacle Clearance Planning: Use AFI 11-202V3, AFMAN 11-217, this chapter and the appropriate MAJCOM supplement.

6.17.1. Obstacle Identification Surface (OIS). Obstacle identification for SID purposes (FAA Handbook 8260.3B, AFJMAN 11-226, UV Standard for Terminal Instrument Procedures (TERPS), are those objects that penetrate an OIS of 40:1 (152-feet per NM). Calculation of the OIS on a SID continues until the SID reaches a MEA or until the SID terminates. Climb gradients of 200-feet per NM will provide at least 48-feet per NM clearance above all obstacles that do not penetrate the OIS. Complying with published climb gradients found on a SID or IFR departure procedure will provide at least 48-feet per NM clearance above all obstacles that do not penetrate the OIS. The AC must be aware and thoroughly brief the crew on all obstacles along the departure flight path.

Figure 6.1. Obstacle Identification Surface.



6.17.1.1. The AMC ASRR is an excellent source for obstacle information, however, it is not a stand-alone document. It is intended to supplement published climb gradients and obstacle information found on SIDs, published IFR departure procedures, GDSS/C2IPS, and terrain charts.

6.17.1.2. Aircrews may call HQ AMC/DOVS for additional airfield obstacle data at DSN 576-4508.

6.17.2. Objects penetrating the OIS may or may not be depicted (they definitely will not be depicted on civil procedures). Objects that do not penetrate the OIS will normally not be depicted.

6.17.3. SIDs simplify ATC procedures while providing safe routing to the en-route structure; however, SIDs should not be used as the sole source of obstacle information for departure planning. If used as such, inadequate (engine out) obstacle clearance may result. SIDs, instrument approach

6.24.6.2. A fireguard is required for all engine starts including the GTC/APU. A crewmember or ground controller may act as fireguard.

6.24.7. Aircrew and maintenance engine run-ups.

6.24.7.1. A mixture of aircrew and maintenance personnel will not normally accomplish engine runs. When an aircrew member is required to start or run up engines for maintenance purposes, the following procedures apply:

6.24.7.1.1. Maintenance personnel will accomplish all necessary inspections and preparations for the engine run. These actions include but are not limited to: intake/exhaust inspections, access panel security servicing, and AFTO Form 781 documentation.

6.24.7.1.2. Use the pilot, flight engineer, and loadmaster checklists. Begin with the "cockpit checklist," and complete all appropriate checklists through the "before leaving the airplane" checklist.

6.24.7.1.3. Deviate from the flight crew checklist only when maintenance requires less than four engines to be started.

6.24.7.1.4. Operate symmetrical engines when power settings above ground idle are required.

6.24.8. Towing. Aircrew members normally will not participate in towing operations. If required to occupy cockpit positions during towing operations conducted by personnel not familiar with C-130 towing procedures, the AC will coordinate with the senior maintenance officer or superintendent to ensure the towing supervisor and crew are qualified. At non-USAF installations, the AC must have approval from the airfield operations officer or manager prior to towing. The AC will ensure the tow team supervisor briefs all personnel on their duties and the associated hazards. Proper checklists will be used. If any doubt exists as to the qualification of tow team personnel or the safety of the operation, make no attempt to tow the aircraft until qualified Air Force personnel can be located. Under no circumstances will any crewmember act as the towing supervisor.

6.24.9. One-Time Flights. An aircraft may be released for a one-time flight with a condition that might be hazardous for continued use, provided the aircraft is airworthy for one flight to another station. This release must be authorized by the OG/CC, the senior maintenance officer, or the chief of the air logistics center (ALC) repair team and requires NAF/DO or AOC/ALCC Chief coordination. AFRC crews see AFI 11-202V3/AFRCSUP1. ANG crews on ANG missions will receive release authority from the OG/CC (or designated representative) or senior maintenance officer. After the maintenance release is obtained, coordinate mission requirements with the controlling agency. The AC's concurrence is required before the aircraft can be flown.

6.25. Aircraft Recovery Away from Main Operating Base (MOB). When an aircraft will land at a base other than the MOB, a crew chief should accompany the aircraft. The aircraft commander is responsible for ensuring the aircraft is turned to meet subsequent mission taskings. If qualified aircraft specialists are unavailable, the aircrew is responsible for turning the aircraft to meet subsequent mission taskings.

6.25.1. Recovery items the aircrew may be responsible for include, but are not limited to, the following:

6.25.1.1. Parking and receiving.

6.25.1.2. Aircraft servicing, including AGE usage.

6.25.1.3. Supervision of minor maintenance within local capability.

6.25.1.4. Minor configuration changes to meet mission tasking.

6.25.1.5. Securing the aircraft prior to entering crew rest.

6.25.1.6. Coordinating aircraft security requirements.

6.25.1.7. AFTO 781-series forms maintenance.

6.25.2. In all cases where aircrews turn aircraft without qualified maintenance specialist assistance, comply with the appropriate maintenance tech order.

6.25.3. Aircrews are not qualified to accomplish the required ground inspections. In those instances where maintenance personnel are not available, the aircrew will enter a red dash symbol in the AFTO Form 781H, **Aerospace Vehicle Flight Status and Maintenance Document**, updating current status and enter a red dash symbol and a discrepancy that reflects that the applicable maintenance inspection (i.e. pre-flight, thru-flight, basic post-flight) is overdue.

6.26. Life Support Requirements.

★6.26.1. Oxygen. Oxygen on board for takeoff must be sufficient to accomplish the planned flight from the equal time point (ETP) should oxygen be required (minimum 5 liters).

★6.26.1.1. Since the C-130 flight deck can accommodate more crewmembers than there are oxygen regulators, all C-130 aircraft will have emergency escape breathing devices (EEBD), or emergency passenger oxygen system (EPOS), or passenger oxygen kits (POK) permanently pre-positioned on the aircraft.

6.26.1.2. On missions carrying passengers, distribute EPOS (if available) to each passenger regardless of planned flight altitude. If the POKs are used, the kits need only be positioned on the aircraft and distributed to each passenger for scheduled flights above FL250. Mixing EPOS and POKs on the same aircraft is not authorized. EPOS/POKs will be distributed and their use demonstrated prior to departure/exceeding FL250 as required.

6.26.1.3. Do not remove the loadmaster's emergency equipment (cargo compartment quick dons/smoke masks) for use by flight deck crewmembers.

6.26.1.4. Aircrew members will comply with the oxygen requirements in AFI 11-202V3.

6.26.1.5. Crewmembers occupying a crew station will have an oxygen mask connected and readily available for use from before engine start until engine shutdown.

6.26.1.6. Crewmembers who do not have access to the aircraft oxygen system will have a POK, or EEBD within arm's reach for flights above 10,000 feet.

6.26.1.7. Normally, unpressurized flight will not be planned above 18,000 feet cabin altitude (except HALO). Aircrews required to fly unpressurized missions above 18,000 will prebreathe 100 percent oxygen in accordance with **Chapter 19**.

6.26.2. Rafts. On overwater flights do not carry more passengers and crewmembers than wing well life rafts will accommodate.

6.26.3. Life preserver units (LPUs). The loadmaster will place an LPU within easy reach of each seated passenger and aircrew member prior to takeoff on overwater flights (outside gliding distance to land). Crewmembers will fit and adjust LPUs (if applicable) for overwater flights and will wear them on overwater missions below 2,000 feet. (**EXCEPTION:** LPUs need not be worn for takeoffs, landings, or approaches). Ensure the appropriate number and type of life preservers are aboard for overwater missions carrying children and infants.

6.26.4. Parachutes:

★6.26.4.1. Parachutes will be carried on aircraft IAW AFI 11-302 and Addenda A of this AFI.

6.26.4.2. Personnel performing duties near an open (or suspected open) door/hatch/ramp in-flight will be restrained by a safety harness, or be wearing a parachute.

6.26.4.3. Either wear, or have pre-fit and pre-positioned parachutes and helmets during specified combat conditions or exercise. Loadmasters will wear a restraining harness instead of a parachute during airdrops below 800 feet AGL or when performing duties near an open exit above 14,000 MSL.

6.27. Fleet Service. Ensure required fleet service items are aboard the aircraft early enough to permit inventory 60-minutes before takeoff time.

6.28. Cargo Documentation. Proper cargo or mail documentation will accompany each load.

6.28.1. Load Data Information (Applicable to AFRC/ANG completing TACC-directed mission). At stations where there is no mobility air transportation function, the aircrew will collect the required load information on each leg, and submit it to the first station, which has such a function. The report will be submitted on AF Form 4075, **Aircraft Load Data Worksheet**.

6.29. Procedures for Airlifting Hazardous Cargo.

6.29.1. The term "hazardous cargo" as used in conjunction with airlift operations, applies to the following classes and types of materials covered by AFJMAN 24-204:

6.29.1.1. Class 1 (Explosives)

6.29.1.2. Class 2 (Compressed gas)

6.29.1.3. Class 3 (Flammable liquid)

6.29.1.4. Class 4 (Flammable solid)

6.29.1.5. Class 5 (Oxidizer and organic peroxide)

6.29.1.6. Class 6 (Poison and infectious substances)

6.29.1.7. Class 7 (Radioactive material)

6.29.1.8. Class 8 (Corrosive material)

6.29.1.9. Class 9 (Miscellaneous dangerous goods)

6.29.2. Procedures in paragraph **6.29.2.** apply when aircraft carry any quantity of the following materials.

6.29.2.1. DoD class or division 1.1, 1.2, 1.3 (explosives)

6.29.2.2. Class or division 2.3 (poison gas)

6.29.2.3. Class or division 6.1, (poison) PG I, zone A and B

6.29.2.4. Class 7 (radioactive yellow III label.)

6.29.2.5. Class 4.3 (dangerous when wet)

6.29.2.6. Nuclear weapons, nuclear components, inert devices

6.29.2.7. DoD hazard class or division 1.4 explosives that transit the United Kingdom, Italy, or Hawaii.

6.29.3. Procedures also apply to nuclear related cargo, toxic chemical ammunition, highly toxic substances, hazard division 1.1 through 1.3 explosives, and infectious substances (including biological and etiological materials). In addition, it applies to Class 7 (Radioactive materials), which require a yellow III Label, and all other hazard classes or divisions, (except class 9 and other regulated material (ORM-D)) when shipped in quantities of 1,000 pounds (455 Kgs) or more aggregate gross weight.

NOTE: Quantities not covered in paragraph 6.29.2 and paragraph 6.29.3 are exempt from these procedures.

6.29.4. The following procedures are established to satisfy the reporting requirements of AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*. (Nuclear weapons, nuclear components, and inert devices are covered in AFI 11-299, *Nuclear Airlift Operations*:

6.29.4.1. The AC will be briefed when the quantities specified in paragraph 6.29.2 and Paragraph 6.29.3 are involved. The briefing will cover the following points:

6.29.4.1.1. Hazard class.

6.29.4.1.2. Proper shipping name.

6.29.4.1.3. DoD class or division when any type explosives are involved.

6.29.4.1.4. Net explosives weight (NEW) for all DoD class or division 1.1, 1.2, and 1.3 explosives and gross weight of blasting agent aboard the aircraft.

6.29.4.1.5. Gross weight of hazardous materials other than the explosives above.

6.29.4.1.6. Passenger restrictions.

6.29.4.1.7. Written notification indicating "prior permission required" (PPR), obtained from the next base to be transited

6.29.4.1.8. Smoking restrictions.

6.29.4.1.9. Flight plan annotation requirements.

6.29.4.1.10. Isolated parking and taxiing requirements.

6.29.4.1.11. Security classification, if appropriate.

6.29.4.1.12. Notification of the requirement to contact the next base to be transited at least 30 minutes prior to landing. (Such contact is not required for quantities other than those in Paragraph 6.29.2 and Paragraph 6.29.3.).

6.29.4.1.13. Placard requirements.

6.29.4.1.14. Escort team requirement, if applicable.

6.38.2.3.3. Fuel on board and hours of endurance.

6.38.2.3.4. Position.

6.38.2.3.5. Altitude and flight conditions.

6.38.2.3.6. Number of personnel and distinguished visitors (DV) on board.

6.38.2.3.7. Qualification of AC.

6.38.2.3.8. Planned landing base.

6.38.2.3.9. ETA at landing base.

6.39. Need for Medical Assistance. When a person aboard the aircraft requires medical care, inform the station of intended landing in sufficient time so the aircraft may be met by medical personnel. Include the patient's sex, approximate age, and the major complaint in the request.

6.40. Weather Forecasts.

6.40.1. It is the pilot's responsibility to obtain destination weather prior to descent.

6.40.2. The primary means is any USAF base weather station via pilot-to-meteorologist service (PMSV) or through a USAF aeronautical station. Check on the latest weather prior to descent or landing.

6.40.3. For aircraft flying in EUCOM AOR (ENAME operations) contact USAFE/OWS at Sembach AB GE (DSN 314-496-6145). SOUTHCOM AOR contact 25 OWS at Davis-Monthan AFB, AZ (DSN 228-1977).

6.40.4. The ATC system can provide weather information to enroute aircraft.

6.40.4.1. The ARTCCs have a limited capability to provide weather information to enroute aircraft within CONUS.

6.40.4.2. SIGMET (significant meteorological information) advisories will be transmitted from the servicing ATC unit. Crews will consider all SIGMETs valid for their aircraft until verified as not applicable with a military METRO service.

Section F - Arrival

6.41. Descent. Prior to descent into unfamiliar areas, appropriate terrain charts (Operational Navigation Chart (ONC), Sectional Aeronautical Chart, Tactical Pilotage Chart (TPC), or Joint Operations Graphic (JOG)) should be reviewed to increase aircrew situational awareness of obstructions. Primary crewmembers will not be involved in duties other than aircraft operations, descent and approach monitoring, and required checklist items from the initial descent point to landing.

6.41.1. Night and Marginal Weather Operations. Fly a precision approach, if available, at night or during marginal weather. If a precision approach is not available, fly any available approved instrument approach. During night VFR conditions, if an approved instrument approach is not available, a visual approach may be flown. On training and evaluation flights at familiar fields, pilots may fly non-precision approaches or VFR traffic patterns to accomplish required training and evaluations. The navigator and pilot not flying the approach will monitor any approach when practical to enhance safety.

★NOTE: The priority of approaches may be preempted by ATO/SPINS when directed.

6.42. Instrument Approach Procedures.

6.42.1. Instrument approach RVR/visibility and, if required, ceiling minimums will be as published for a category "C" aircraft. If approach speeds exceed 140 knots, the minimums for category "D" will be used. Before starting an instrument approach, or beginning an en route descent, pilots will confirm that existing weather is reported to be:

6.42.1.1. At or above required visibility for a DoD or National Oceanic and Atmospheric Administration (NOAA) precision approach criteria:

6.42.1.2. At or above required ceiling and visibility for all other approaches. For approaches with no published ceiling requirement (for example Jeppesen approaches), the minimum required ceiling shall be computed by taking the published HAA or HAT and rounding it up to the nearest one hundred feet or as determined by MAJCOM TERPS review. For example, a Jeppesen VOR approach with a published HAA of 642-feet would require an existing ceiling of 700-feet (plus the published visibility) prior to commencing the approach or en route descent.

NOTE: Pilots shall increase the published visibility minimums of an instrument approach by $\frac{1}{2}$ SM or as noted in NOTAMs, on ATIS, or on the approach plate, when the runway approach lighting system (ALS) is inoperative. (This applies only to the ALS itself, not to VASIs, PAPIs, and other lights that are not a component of the ALS.)

6.42.1.3. Aircraft are limited to a DH/MDA based on a HAT of 300-feet and RVR 40, or $\frac{3}{4}$ -mile visibility (1220-meters) with no RVR if full flight instrumentation is not available and operational.

NOTE 1: Full flight instrument for a Category I ILS is dual flight displays (one flight director plus ADI repeat), complete differential pressure instruments, heading/compass systems, and attitude indicators in the pilot and copilot positions.

NOTE 2: Full flight instrumentation for a precision approach radar (PAR) is complete differential pressure instruments, heading/compass systems, and attitude indicators in the pilot and copilot positions.

6.42.2. Prior to starting an instrument approach, pilots will confirm their aircraft can meet or exceed all climb gradients specified in the missed approach procedure, based on the number of engines operating when the approach is begun. If missed approach climb charts are not available, use the takeoff obstacle clearance charts. If unable to meet required climb gradients, pilots must coordinate alternate missed approach procedures with ATC, which will ensure terrain clearance, prior to commencing the approach. If this is not possible, do not attempt the approach.

6.42.3. If ceiling is below value depicted for published DoD or NOAA precision approach, but visibility is at or above authorized minimums, the pilot will comply with fuel requirements of **Chapter 14**, prior to initiating en route descent, penetration, or approach.

6.42.4. For a precision approach, the DH will provide a height above touchdown of 200 feet or higher. For PAR approaches, visibility will be no lower than RVR 2400 (730-meters) or $\frac{1}{2}$ -mile visibility (800-meters) with no RVR readout available.

6.44.2. If the delay is at a location where DoD facilities are available and AMC TWCF funds are not available, the AC will utilize AF Form 15, **United States Air Force Invoice** authority to acquire the appropriate lodging accommodations. Upon return to home station, the AC will send the AF Form 15 to the local accounting liaison office. A copy of the service members' group travel orders, along with any other pertinent supporting data, must accompany the form (e.g., lodging invoice and/or receipts). When the AF Form 15 has been validated, it will be forwarded on to the servicing OPLOC for payment, citing the funds of the unit whose aircraft was delayed.

6.44.3. If the delay is at a location where both DoD facilities and TWCF funds are unavailable, the AC will utilize AF Form 15 authority to acquire the appropriate meals, quarters, and transportation to support the service members. Upon return to home station, the AC will send the AF Form 15 to the local accounting liaison office. A copy of the service members' group travel orders, along with any other pertinent supporting data, must accompany the form (e.g., lodging invoice and/or receipts). When the AF Form 15 has been validated, it will be forwarded on to the servicing OPLOC for payment, citing the funds of the unit whose aircraft was delayed.

NOTE: This policy does not apply to those passengers on delayed TWCF organic aircraft who are in a per diem or space available status, except for those duty passengers on TWCF funded travel orders delayed at locations where TWCF funds are available.

6.45. Maintenance. Complete the AFTO Form 781 after each flight. After landing, crewmembers debrief maintenance personnel on the condition of the aircraft, engines, avionics equipment, and all installed special equipment as required. At stations without maintenance support, when a maintenance requirement exists the AC will ensure a thorough debrief is provided to the C2 agency, and the MAJCOM Logistics Readiness Center is notified prior to entering crew rest.

6.45.1. Aircrews are not qualified to accomplish the required maintenance inspections. In those instances where maintenance personnel are not available, the aircrew will enter a red dash symbol in the AFTO Form 781H, **Aerospace Vehicle Flight Status and Maintenance Document**, updating current status and enter a red dash symbol and a discrepancy that reflects that the applicable maintenance inspection (i.e., preflight, thru-flight, basic post-flight) is overdue.

★6.45.2. An entry will be placed in AFTO 781A, "Aircraft Subjected to Salt Spray" (state lowest altitude and duration) anytime the aircraft is flown under 3,000 feet above sea except for takeoffs and landings.

6.46. Border Clearance:

6.46.1. Normal Operations:

6.46.1.1. The unit dispatching the mission is normally responsible for the border clearance of its aircraft.

6.46.1.2. When support is not available, border clearance is the responsibility of the AC. Duties may be assigned to ground personnel or to the loadmaster, but the AC retains ultimate responsibility. When a C-130 aircraft is unloaded at a base without an air traffic function, the AC is responsible for ensuring the following:

6.46.1.2.1. Crewmembers, troops, and passengers possess current passports and valid visas, when required.

6.46.1.2.2. Crewmembers, troops, and passengers have current certificates of immunization (shot record).

6.46.1.2.3. Cargo entry documents are in proper order.

6.46.1.2.4. Departing or entering the United States through a location where border clearance can be obtained.

6.46.1.2.5. Obtaining border clearance for aircraft cargo, passengers, crew and baggage, if required, before takeoff to a foreign area or after arrival from a foreign area.

6.46.1.2.6. Spraying the aircraft (see the FCG and paragraph 6.47).

6.46.2. Procedures for US Entry.

6.46.2.1. Enroute, the loadmaster will distribute personal customs declarations (when not accomplished by passenger services) to all passengers, troops, and crewmembers. The loadmaster will also brief passengers and crewmembers on customs regulations, and prepare and compile necessary border clearance forms for the AC's signature.

6.46.2.2. Enroute, notify the C2 agency at the base of intended landing of any change in ETA to ensure that border clearance is accomplished as soon as possible after landing.

6.46.2.3. Obtain a permit to proceed when military necessities require that an aircraft, which has landed in the United States for customs clearance, to proceed to another base in the US to obtain border clearance. The permit to proceed delays customs inspection of cargo, passengers, and crew until arrival at the offload station, and saves intermediate offloading and reloading normally required for customs inspection. The permit to proceed is valid only to the airport of next landing where the border clearance must be completed or a new permit to proceed issued by a customs official. Do not make intermediate stops between the issue point of the permit to proceed and destination of manifested cargo unless required by an emergency situation or directed by the controlling C2 center.

6.46.2.4. When an aircraft lands for a US border clearance, a US Customs representative normally will meet the aircraft to obtain the required documents. Do not deplane passengers, troops, or crewmembers unless necessary for safety or the preservation of life and property (loadmaster excepted). Do not unload until approved by customs and agriculture personnel or their designated representatives. This procedure applies to the initial landing in the US and all landings required when operating on a permit to proceed or until all crew, passengers, and cargo complete final border clearance.

6.46.3. Inspections of US aircraft by foreign officials.

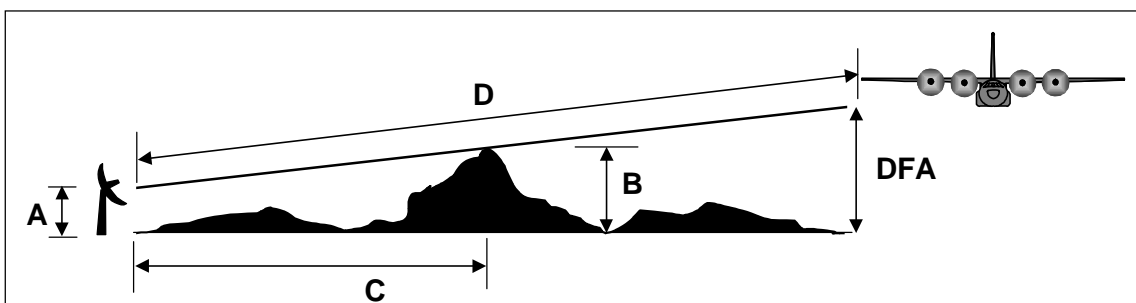
6.46.3.1. Follow US Air Force policy on status of military aircraft as stated in the FCG, *General Information* (Chapter 3). In substance, this policy holds that US military aircraft are immune from searches, seizures, and inspections (including customs and safety inspections) by foreign officials. In addition, ACs must be aware of and adhere to any specific FCG provisions for individual countries.

6.46.3.2. If confronted with a search request by foreign authorities, aircrews should use the following procedures.

mine the highest altitude an aircraft can transit a point and remain below a radar's coverage. It is based on the line of sight limitation when obstacles or terrain lie between the radar and the aircraft. See **Figure 16.1**. Formula: $DFA = [(B - A) / C + (D - C) / 15] \times D + A$. where DFA = Detection Free Altitude (feet MSL); A = Antenna elevation (feet MSL); B = Terrain elevation (feet MSL); C = Terrain distance from antenna (NM); and D = Aircraft distance from antenna (NM).

NOTE: Flying below the DFA will deny detection by that radar only at the point for which the calculation is made. Passive detection of aircraft emissions may occur even when the aircraft is terrain masked.

Figure 16.1. Detection Free Altitude (DFA).



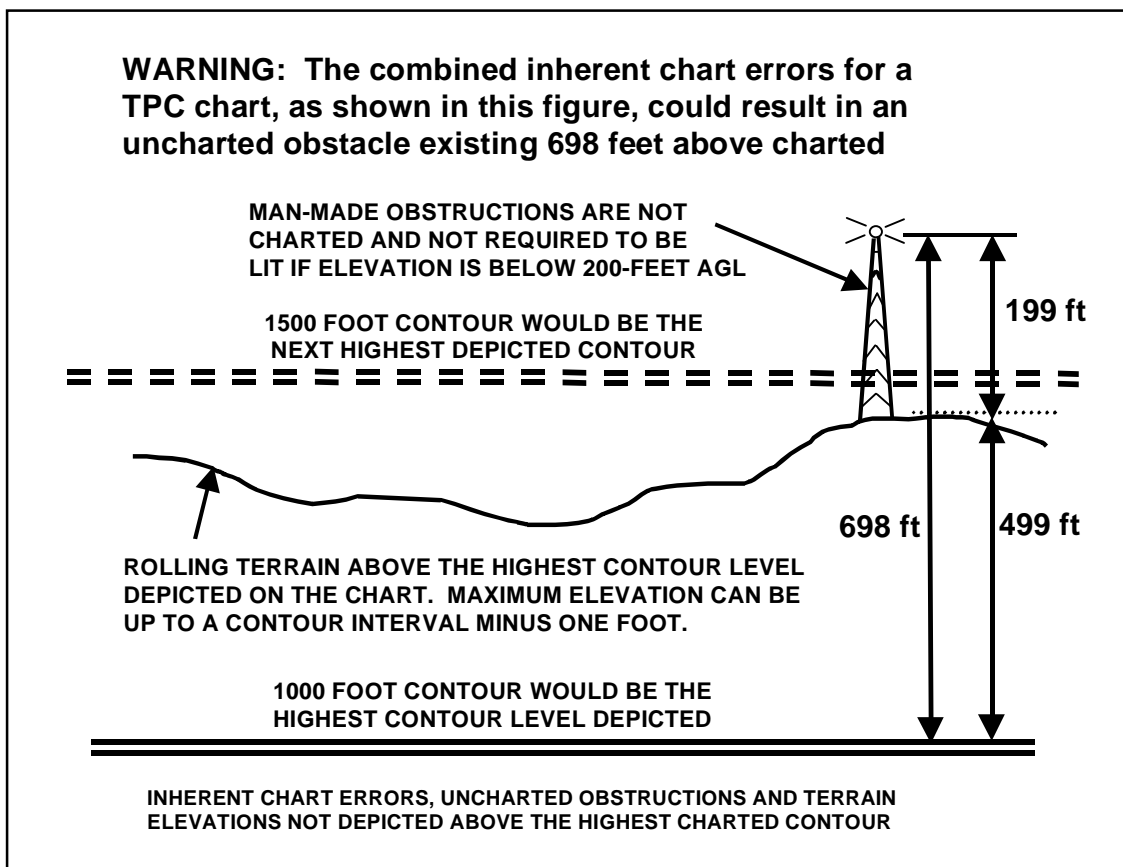
16.3.6.4. Range Planning. For planning purposes, mission aircraft should be routed outside the maximum theoretical radar range. If this is not possible, plan the route outside the RHD or below the DFA.

16.3.7. Low-Level Altitude Restrictions. Low-level altitudes will depend on conditions such as terrain, threat, the necessity to avoid detection, and equipment limitations. The following minimum altitudes are established for C-130 airlift operations. Higher altitudes may be dictated by FLIP/ICAO procedures, training considerations, terrain, or operational directives.

WARNING: Aeronautical charts do not depict man-made obstacles less than 200-feet AGL or a change in terrain until it exceeds the chart contour interval. The worst situation would occur if a 199-foot tower sat on terrain with an elevation just below the next higher contour. For a TPC (1:500,000) with a contour interval of 500 feet, this results in an uncharted obstacle existing 698-feet above charted terrain. Additionally, the highest spot elevation on any given leg may not be the highest terrain as in the case of gradually rising elevations. Planners must ensure accurate terrain analysis by evaluating both spot elevations and the highest contour level. **Figure 16.2, Inherent Chart Error**, illustrates uncharted obstacles and terrain elevations not depicted above the highest chart contour.

CAUTION: Some charts may depict terrain and obstacle altitudes in meters versus feet (e.g., JOG and TLM charts in some areas of the world).

Figure 16.2. Inherent Chart Error.



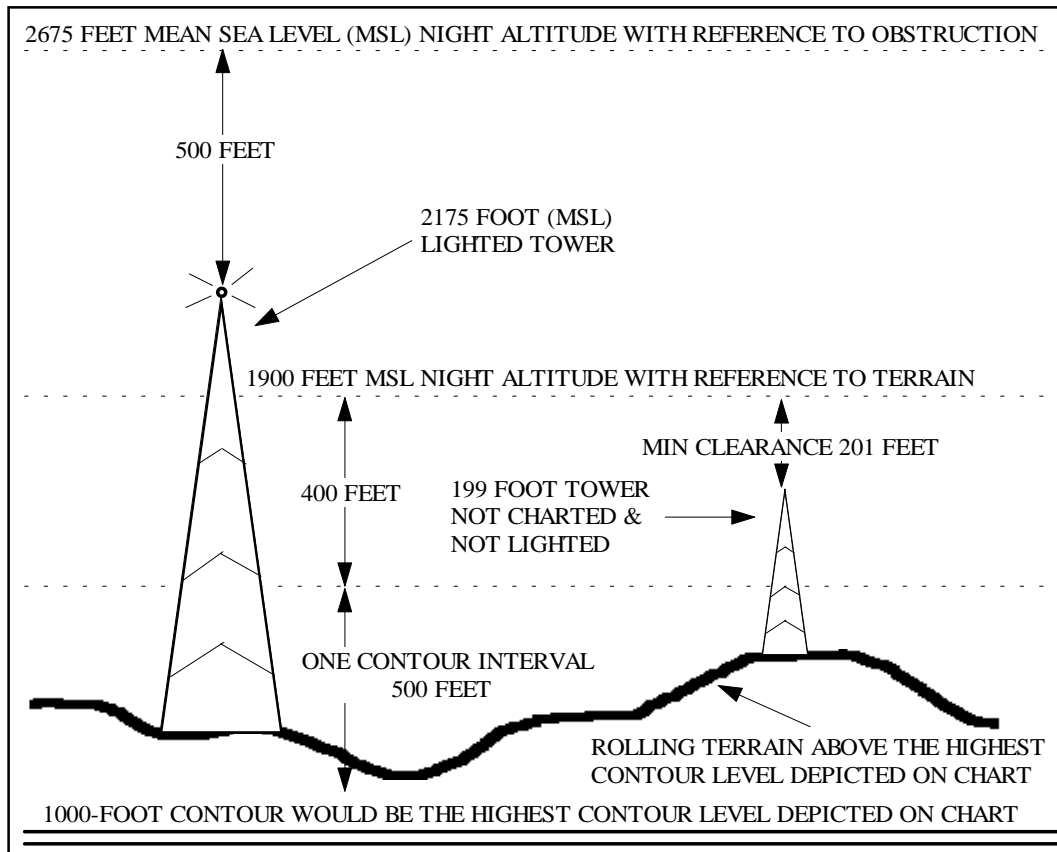
16.3.7.1. Day VMC Enroute. Plan a minimum of 500-feet AGL (300-feet AGL on approved routes) modified contour altitude above the terrain using visual references and radar altimeter.

★16.3.7.2. Night VMC Enroute. Plan enroute legs at an indicated altitude of 500-feet above the highest obstruction to flight (man-made obstacle, terrain feature, or spot elevation), or 400-feet plus one chart contour interval above the highest depicted terrain contour, whichever is highest, within 5 NMs of route centerline to include the aircraft turn radius over each turnpoint. If the altitude for the next leg is higher than the current leg altitude, climb will be completed prior to the turnpoint. If the altitude for the next leg is lower than the current leg, do not initiate descent until over the turnpoint. Legs may be divided into segments for night altitude computations, depending on terrain differential or threats in order to allow flight closer to the ground. Once the obstacle or terrain feature is visually identified and the aircraft is confirmed well clear, the crew may descend to the next segmented altitude, if lower (see **Figure 16.3.**).

NOTE: Planning a route on a JOG chart, if available, significantly reduces night enroute altitudes. If the route has been planned on a JOG and night altitudes are verified, the route may be flown with the lower altitudes when flying with reference to a tactical pilotage chart (TPC).

16.3.7.3. Minimum Safe Altitude (MSA). MSA is an initial VFR altitude that provides additional terrain clearance while the aircrew analyzes situations that require interruption of low-level operations (route disorientation and equipment malfunctions or when either pilot must leave the seat during low-level operations, etc.). An MSA will be computed for each leg, route segment, or entire low-level route. Compute MSA the same as night altitudes in paragraph 16.3.7.2.

Figure 16.3. Minimum Night VMC Enroute Altitude.



16.3.7.4. Minimum IFR Enroute Altitude. Compute minimum IFR enroute altitude by adding 1,000-feet (2,000-feet in mountainous terrain) above the highest obstruction to flight (man-made obstruction, terrain feature, or spot elevation) within 5 NMs of route centerline (10 NMs outside the US). Round this altitude to the next 100-foot increment.

16.3.7.4.1. Minimum altitudes for IFR operations within published Military Training Routes (MTRs) in US sovereign airspace will be the computed leg MSAs unless a higher altitude is required by FLIP AP/1B.

16.3.7.5. Emergency Safe Altitude (ESA). ESA is designed to provide positive IMC terrain clearance during emergency situations that require leaving the low-level structure. Several ESAs may be computed for route segments transiting significant terrain differentials, or a single ESA may be computed for the entire low-level route. To compute ESA, add 1,000-feet (2,000-feet in mountainous terrain) to the elevation of the highest obstruction to flight within 22 NMs either side of the planned route centerline.

NOTE: Climbing to the ESA may put the aircraft in a controlled (i.e., IFR) altitude structure requiring coordination with air traffic control agencies.

NOTE: Pressure altimeters are calibrated to indicate true altitudes under international standard atmospheric (ISA) conditions. Any deviation from these standard conditions will result in erroneous readings on the altimeter. This error becomes important when considering obstacle clearances in temperatures lower than standard since the aircraft's altitude is below the figure indicated by the altimeter. Refer to the flight information handbook to determine correction.

16.3.8. Airdrop Altitudes and Airspeeds. Minimum airdrop altitudes and airspeeds for specific loads and parachutes are defined in AFI 11-231. If minimum terrain clearance cannot be satisfied during descent to drop altitude, change the run-in course, delay descent, step down to drop altitude, or airdrop at a higher altitude. The pressure altimeter should be cross-checked with the radar altimeter during the run-in to the DZ to help ensure the aircraft is at or above the minimum drop altitude. Airdrops will not be conducted below the following altitudes:

WARNING: DZ surveys do not assure terrain and obstruction clearance. Planners and aircrews are responsible for ensuring clearance through mission planning/chart preparation.

NOTE: During visual airdrops, altitudes on DZ run-in may be segmented to allow for lowest possible run-in/drop altitude. Once the limiting obstruction (man-made obstruction or terrain feature) is visually identified and the aircraft is confirmed well clear, the crew may descend to the next segment altitude, if lower.

16.3.8.1. Day VMC Drop Altitude. Plan minimum day VMC airdrop altitudes as specified in AFI 11-231, visually avoiding high terrain and obstacles in the vicinity of the drop zone.

★16.3.8.2. Night VMC Drop Altitude. Plan minimum night VMC run-in altitudes, from slowdown through escape, at an indicated altitude of 500-feet above the highest obstruction to flight (man-made obstacle, terrain feature, or spot elevation), or 400-feet plus one contour interval above the highest depicted terrain contour, whichever is higher, within 3 NM of run-in centerline. After slowdown, when the Drop Zone is in sight and will remain in sight, or when a positive position is identified and adequate terrain clearance is assured, the aircraft may descend from run-in altitude to drop altitude specified in AFI 11-231, AMT, SPINS, or mission planning sheet.

18.41.2. The navigator backs-up SKE positioning with radar when it is not required for navigation or weather avoidance. Formation aircraft detecting a gross position error will notify the offending aircraft. The subject aircraft will confirm or establish position immediately.

18.41.3. Use the pressure altimeter and GSI to monitor altitude during climb or descent. Set the SKE secondary control panel to "altitude 00." The formation lead announces the altitude passing each 2,000-feet (including departure and recovery). All aircraft report reaching assigned altitude in sequence to the formation leader. Formation lead will not report the formation level to ATC until all aircraft have reported level at the assigned altitude.

18.41.4. Enroute Turns. Plan turns for less than 90 degrees to avoid destabilizing the formation. Element leads are limited to 20 degrees of bank for AWADS/SKE operations

18.41.4.1. Follower aircraft will use the turn computer as the primary means to delay their turn based on true airspeed and timing from element lead's execute ("E") signal. The navigator will compute back-up timing to use if the turn computer fails. Use the PPI/DVST/RDU to maintain relative position and monitor other formation aircraft.

18.41.5. Airspeed Changes. Unless announced by ESKE or radio call, unprogrammed airspeed changes will be in increments of 10 knots. Leads will use 900-degrees TIT to accelerate and 600 degrees TIT to decelerate.

18.42. Spacing.

18.42.1. The second and third aircraft of each element respectively maintain 4,000 and 8,000-foot spacing from their element lead. Maintain spacing with reference to the element lead to reduce telescoping effects. The offset distance for enroute navigation is 500-foot right for the number 2 aircraft and 500-foot left for the number 3 aircraft.

18.42.2. Element leads maintain 12,000-foot separation from the preceding element lead, and "00" cross-track separation.

★18.42.3. CDS airdrop using SKE/AWADS Procedures. CDS airdrops in formation are prohibited. CDS airdrops will be flown with a minimum of 6,000-foot spacing between aircraft per paragraph 18.18.3. Under IMC conditions, 12,000-foot spacing will be used between aircraft. All aircraft will fly as element leads with no wingmen. All positions will be flown by AWADS qualified aircrews.

NOTE: During long missions, mission commanders may extend enroute spacing and/or cross-track to reduce fatigue, as required.

18.43. Loss of SKE-Individual Aircraft. Notify lead in all cases.

18.43.1. VMC

18.43.1.1. If only the DVST/PPI is inoperative aircraft may elect to maintain position with lead's concurrence. The route, drop, and recover may be flown.

18.43.1.2. If all SKE indications are lost, use sound judgment in selecting the safest course of action. The following are a few options available:

18.43.1.2.1. Break out of the formation in the safest direction, and rejoin VFR at the end of the formation.

18.43.1.2.2. Obtain a separate clearance and proceed single ship.

★**NOTE:** Consider using air-to-air TACAN and/or aircraft radar to maintain spacing.

18.43.2. IMC.

18.43.2.1. Loss of all SKE indications will require a breakout. Use the following procedure if an alternate plan was not briefed:

18.43.2.2. If the formation is in straight and level flight climb 500-feet, turn 30 degrees in the safest direction from the base heading for 30 seconds, and then return to base heading. If the formation is in a turn roll out and climb 500-feet. Lead will contact (or direct contact to) ATC for a separate clearance.

CAUTION: Performing the above maneuvers in a radar pattern may place an aircraft outside of protected airspace.

18.44. Overrun Procedures. When executing an overrun, establish safe separation between aircraft and reacquire formation position. Overly aggressive maneuvers by element leads adversely affect the following elements.

18.44.1. Element Lead. If cross-track is set, start a turn in the direction of the set cross-track unless safety dictates otherwise. Set an additional 1,300-foot cross-track and monitor position on the TWS and PPI/DVST/RDU. If crosstrack is zero, turn in the safest direction based on airspace restrictions, flight path, and terrain obstructions; set 1,300-foot crosstrack; and monitor position on the TWS and PPI/DVST/RDU. Element lead announces his overrun giving element number, base heading, and base airspeed. After the correct spacing has been attained, reestablish formation position. If not in position by one minute prior to TOT, abort the drop.

18.44.2. Wingman. Start a turn in the direction of the set cross-track, set an additional 300-foot crosstrack and monitor position. Aircraft will announce overrun by formation position. After the correct spacing has been attained, reestablish formation position. If not in a safe drop position by one minute prior to TOT, abort the drop.

18.45. Lead Change.

18.45.1. Unless briefed otherwise, the AC relinquishing the lead commands the lead change. The new leader acknowledges.

18.45.2. The relinquishing leader turns 45-degrees away from base heading in the safest direction until 1 NM from the formation, reset appropriate crosstrack, range, and leader number, and drifts back to rejoin at the end of the formation. If VMC, the old leader may join at a coordinated position within the formation.

18.45.3. The appropriate follower aircraft selects the new leader number and resets crosstrack and range as required to maintain a one-two relationship within elements.

18.45.4. New lead performs an FCI check.

18.46. Run-In and Slowdown.

NOTE: Do not attempt AWADS/SKE airdrops in areas of thunderstorm activity, heavy precipitation, or during icing conditions.

18.46.1. All aircraft will use lead's drift to determine SKE crosstrack.

NOTE: Element leaders will maintain position with reference to formation lead until reaching drop altitude at which time they fly an independent approach.

Section 20D - Aeromedical Evacuation Aircrew Procedures

20.12. Checklists.

- 20.12.1. General. This instruction and AFI 11-215 set policy and provide guidance for the standardization of contents and maintenance of flight crew checklists. Checklists will be maintained per AFI 11-215 and applicable MAJCOM supplement.
- 20.12.2. Applicability. This instruction applies to all AECMs assigned to AMC and AMC-gained AE units. It also applies to theater assigned AECMs performing AE duties on the C-130 aircraft.
- 20.12.3. During all aircraft operations, AECMs will carry and use the guidance contained in their current abbreviated flight crew checklist.
- 20.12.4. Only MAJCOM/DO and SG approved inserts/briefings pertaining to crew positions will be kept in the abbreviated flight crew checklist binders.
- 20.12.5. Information in the AECM checklists will not be changed except by published revisions or changes.

Section 20E - AE Airlift Operations

20.13. General.

- 20.13.1. Determining Factors. Consider the following factors when transporting patients on the C-130 aircraft; patient's diagnosis, condition, equipment, oxygen requirements, in-flight time, in-flight patient care requirements, and the number of medical personnel required. Emphasis must always be on providing quality and appropriate care while minimizing potential risks during transport.
- 20.13.2. Patient Load Planning Factors. The GPMRC/TPMRC or tasking AE command element determines the size/composition of the patient load on AE missions.
- 20.13.3. Patient Preparation. A flight surgeon, if available, will determine the patient's suitability for AE on the C-130 aircraft. Medical authorities requesting the patient's evacuation must be informed of the in-flight physical stress on the patient. If the MCD determines the patient's medical condition is beyond the capability of the AE crew or aircraft, they will contact the theater GPMRC/TPMRC or tasking AE command element for further guidance. The MCD, in coordination with the appropriate theater medical validating authority, may refuse to accept any patient whose medical condition is beyond their capability. The MCD will advise the AC when a patient's condition or use of medical equipment may affect aircraft operation.
- ★20.13.4. Equipment for AE Missions. Prior to use onboard AE missions, all medical equipment must be tested and deemed airworthy, and then approved for use by HQ AMC/SGX. For those unique patient moves requiring equipment that has not met the above criteria, contact GPMRC/TPMRC or tasking AE command element. GPMRC/TPMRC or tasking AE command element will obtain a waiver in accordance with **Chapter 4** prior to use onboard the aircraft (applies to that specific mission). AECMs are responsible for all medical supplies and equipment.
- 20.13.5. Aircraft Security. See **Chapter 7**.

20.14. En Route Diversions.

20.14.1. The MCD is the medical authority onboard all AE missions and has the responsibility to determine what is beneficial or detrimental to the patient(s). If a physician is onboard, as an attendant to a patient, they will make decisions involving that specific patient's care and may be consulted for advice as appropriate. See guidelines in applicable AFI/H 41- series publication.

20.14.2. Should a diversion become necessary due to a change in patient's condition, the AC will make every effort to comply with the requests of the MCD. Establish communications with the responsible command and control agencies, who will relay the information to the appropriate GPMRC/TPMRC or tasking AE command element.

20.14.3. Should an en route diversion become necessary for reasons other than a change in patient's condition, the aircraft commander will coordinate with the MCD before deciding the point of landing. The welfare of the patients is a prime consideration in all such decisions; however, safety is the final determinant. The AC notifies the responsible command and control agencies of the diversion and requests the appropriate medical agencies be notified.

20.14.4. Normally, patients will be advised of itinerary changes and reasons for the diversion.

20.14.5. If the MCD determines the diversion will be detrimental to the patient, or the AC determines the diversion to be unsafe, the C2 agencies will be advised and guidance requested.

20.14.6. ARMS are the primary means of preparing for AE airlift. These missions can be diverted to fulfill "real" versus "simulated" patient airlift requirements. All medical equipment/kits will be kept operationally ready at all times. The Portable Therapeutic Liquid Oxygen (PTLOX) system, when mission ready, will be filled with liquid oxygen. **EXCEPTION:** The PTLOX system, when mission capable, will be maintained with nitrogen IAW T.O. 15X-2-8-1, *Liquid Oxygen Converter Type CRU-87/U*.

20.14.7. Opportune Airlift. Opportune airlift is preferred to launching a special airlift aircraft. The appropriate GPMRC/TPMRC or tasking AE command element and airlift agency should direct the move. Use of opportune airlift is considered an unscheduled AE mission and managed/reported in the same manner as any other AE mission, to include the change of the mission number when patients are onboard. AECMs on these missions will either be qualified/certified or under supervision while gaining qualification/certification in the affected aircraft.

20.15. Ground Operations.

20.15.1. Engines should be shut down during enplaning and deplaning of patients.

20.16. Refueling Operations.

20.16.1. Refueling normally begins after deplaning patients are off the aircraft and prior to enplaning that station's patients. This minimizes the number of souls on board in case of an emergency. Servicing will be per AFI 32-2001 and T.O. 00-25-172.

20.16.2. Concurrent servicing may be accomplished with patients onboard provided:

20.16.2.1. The Chief Servicing Supervisor (CSS) coordinates with all personnel involved prior to beginning concurrent operations.

20.16.2.2. Prior to starting concurrent servicing, the total number of patients, passengers, and crew on board the aircraft will be given to the fire department.

Section 20G - Crew Duties and Emergency Procedures.

20.26. EXPANDED CREW DUTIES -- MEDICAL CREW DIRECTOR (MCD), FLIGHT NURSE (FN). Use the expanded crew duty checklist in **Table 20.1**.

★**Table 20.1. EXPANDED CREW DUTIES – MCD and FN.**

AEROMEDICAL EVACUATION CREW MEMBER ABBREVIATIONS

The following abbreviations are used in this section to identify specific Aeromedical Evacuation Crewmembers (AECMs), their duties, and the loadmaster:

- (AEC) Aeromedical Evacuation Crew (entire aeromedical evacuation crew (below))
- (MCD) Medical Crew Director
- (FN) Flight Nurse
- (CMT) Charge Medical Technician
- (2AET) Second Aeromedical Evacuation Technician
- (3AET) Third Aeromedical Evacuation Technician
- (AET) Aeromedical Evacuation Technician (CMT, 2AET, & 3AET)
- (LM) Loadmaster

MEDICAL CREW DIRECTOR. The Medical Crew Director (MCD) ensures the aircraft is acceptable and configured for the assigned mission. The MCD supervises the nursing care and management of patients and is responsible for managing the AEC assigned to the mission. The MCD will advise and/or coordinate all pertinent aspects of the mission with the pilot.

FLIGHT NURSE. The Flight Nurse (FN) will assist the MCD as required. The FN provides professional nursing care during all aspects of AE missions, reviews and coordinates in-flight patient care requirements as required with origination and destination MTF personnel, completes appropriate forms, and performs additional duties as assigned by the MCD.

EXPANDED CREW DUTIES – MCD & FN CHECKLIST

The abbreviated flight crew checklist will be used during all phases of the mission when accomplishing flight crew duties. If the checklist is accomplished by one flight nurse, accomplish all MCD and FN duties. When aircraft preparation and loading are accomplished by a ground support crew, the items with an “*” WILL be briefed by ground support personnel prior to the flight crew assuming responsibility. Items with an “!” WILL be accomplished prior to takeoff for combat/contingency missions. Resume the applicable section of the checklist, once in-flight. When crew duties permit, AECMs will make every effort to assist the LM in accomplishing their passenger related duties.

INTERIOR INSPECTION.

!1. Oxygen Mask, MA-1 Bottle, Goggles, EEBD -- Checked (AEC)

- a. MA-1 bottle serviced.
- b. Attach mask to MA-1 bottle and check operation.
- c. Ensure unit is properly secured at duty station.
- d. Check currency of EEBD.
- e. Secure all personal equipment and set up work area.

★Table 20.1. Continued.

- ! 2. LPU, EPOS, POK (As required) -- Checked (AEC)
 - a. Check currency of EPOS, POK.
 - b. Ensure proper fit of LPU.
- *! 3. Cabin Preparation -- Checked (AEC)
 - a. Rollers off aircraft floor and secured (As required).
 - b. Assist with configuration of aircraft for patient requirements per configuration plan, T.O. 1C-130A-9, and AFI 11-2C-130V3 Addenda A.
 - (1) Litter stanchions, straps, and brackets installed per mission requirements.
 - (2) Seats are properly secured to the aircraft and seat belts are attached.
 - c. Infection control/isolation area set up per established procedures. (FN)
- *! 4. Medical Supplies, Equipment – Checked, Secured (AEC)
 - a. Secure medications (patient, emergency, and narcotics). (FN)
 - b. Ensure all medical supplies/equipment are available, operational, and secured. (AEC)
 - c. Report discrepancies to MCD.
- 5. Aircraft Status -- Received/Reported (AEC)
 - a. Report duties accomplished, aircraft acceptance to MCD. (FN)
 - b. Receive report from FN, CMT on aircraft acceptability. (MCD)
 - c. Report discrepancies to the LM (As required). (MCD)

LOADING.**NOTE**

Inform MCD before leaving aircraft.

- 1. Aircraft Ready for Enplaning -- Coordinated (AEC)
 - a. Crew stations assumed for enplaning.
- ! 2. Engine Running Onload (ERO) Preparations (As required) -- Completed (AEC)
 - a. Coordinate ERO activities with LM. (MCD)
 - b. Prepare cabin for ERO operations after departing the active runway.
- *! 3. Patient Report, Records, Supplies, Medications, Anti-hijacking Statement -- Received (MCD)
 - a. Receive patient clinical update, medical records, X-rays, medications, passports/visas, customs forms, anti-hijacking statement, etc., from Medical Treatment Facility (MTF)/Mobile Aeromedical Staging Facility (MASF) personnel.
- *! 4. Patients -- Enplaned (AEC)
 - a. Coordinate/direct patient enplaning procedures with AEC and MTF/MASF personnel per patient positioning plan. (MCD)
 - b. Assist with enplaning litter patients.
 - c. Supervise/assist with enplaning of ambulatory patients and attendants. (FN)

★Table 20.1. Continued.

- d. Notify MCD of any changes in patient status. (FN)
 - e. Assist LM (crew duties permitting) with enplaning of passengers (As required). (FN)
 - f. Check patients, passengers for hearing protection.
 - g. Outside litter brackets will be secured before loading another litter.
5. Patient, Passenger Briefing Demonstration -- Completed (AEC)
- a. Assist LM with demonstration of LPUs, POKs, EPOS to ambulatory patients, passengers.
 - b. Identify emergency exits.
 - c. Provide individual briefings to litter patients and any other patients requiring a special briefing.

BEFORE TAXI.

- ! 1. Patients, Passengers -- Secured (AEC)
- a. Assist CMT with securing litter patients on left side of aircraft. (MCD)
 - b. Assist 2AET with securing litter patients on right side of aircraft. (FN)

WARNING

As a minimum, outside litter brackets should be secured before taxi.

WARNING

If not ready for taxi, the MCD will immediately notify the LM, providing estimated delay time, so the pilot will not begin taxi of aircraft.

- ! 2. Souls On Board -- Reported to MCD (FN)
- ! 3. Souls On Board -- Reported to LM, AEC (MCD)

BEFORE TAKE-OFF.

1. Patient Care -- Completed (AEC)
- a. Direct/assist in pre-departure patient care. (MCD)
 - b. Check condition/comfort of patients.
 - c. Notify the MCD if a potential delay will occur due to patient needs.

- ! 2. Cabin Secure -- Completed (AEC)
- a. Ensure all patients, supplies, equipment, baggage are secured.

WARNING

Inside litter brackets and stanchion straps will be secured before takeoff.

WARNING

Immediately notify the MCD if the cabin is not secure for take-off.

NOTE

Notify the LM if AECMs must stand during take-off.

- ! 3. Safety Belt -- Fastened (AEC)
- ! 4. Cabin Secure -- Reported/Received (AEC)

★Table 20.1. Continued.

CRUISE.

1. Patient Check -- Completed (AEC)
 - a. Observe patients during ascent.
 - b. Check each patient's condition when notified it is safe to move about the cabin. (FN)
2. Patient Care -- Administered (AEC)
 - a. Direct AEC in performance of patient care requirements. (MCD)
 - b. Assess patient's needs, perform patient care and document.
 - c. Administer/document patient medications and treatments. (FN)
 - d. Direct and supervise AEC in their duties. (MCD)
 - e. Distribute comfort items and provide fluids every two hours if not contraindicated.
3. In-Flight Meal Service -- Completed (AEC)
 - a. Coordinate meal service with CMT, LM. (MCD)
 - b. Assist in distribution of meals.
 - c. Assist patients (As required).

NOTE

Meals should be served in the following order: special diets, litter patients, ambulatory patients.

4. Administrative Duties -- Completed (AEC)
 - a. Correct manifest(s) and revise patient positioning plan to reflect cancellations/add-on patients. (MCD)
 - b. Separate patient paperwork and medications according to destination medical facility (as required). (MCD/FN)
 - c. Prepare AFTO Form 781, **Aircrew/Mission Flight Data Document**, and provide to flight engineer. (MCD)
 - d. Provide pilot written offload message indicating any special ground support requirements a minimum of 30 minutes prior to estimated time of arrival. (MCD)
 - e. Complete all patient records and other mission paperwork.
5. Cabin Cleanliness -- Maintained (AEC)
6. Medical Inventory -- Completed (AEC)

NOTE

Perform inventory during the last sortie of the day.

DESCENT.

1. Deplaning -- Coordinated (AEC)
 - a. Coordinate deplaning procedures at en route stop and/or final destination.
 - b. Coordinate deplaning procedures with CMT and LM. (MCD)

★Table 20.1. Continued.

2. Patients -- Prepared for Landing (AEC)
 - a. Wake patients prior to descent.
 - b. Secure patients.
 - (1) Ensure all litter patients on left side of aircraft are secured. (CMT)
 - (2) Ensure all litter patients on right side of aircraft are secured. (2AET)
 - (3) Ensure all ambulatory patients and passengers are seated, seat belts fastened. (3AET)
 - c. Secure all supplies, equipment, and baggage prior to landing.
 - d. Observe patients during descent.

WARNING

Immediately notify the MCD if the cabin is not secure for landing.

NOTE

Notify the LM if AECMs must stand during landing.

3. Safety Belt -- Fastened (AEC)
4. Cabin Secure -- Received/Reported (AEC)
 - a. Receive cabin secure report from FN and CMT. (MCD)

OFFLOADING.**NOTE**

Inform MCD before leaving aircraft.

1. Patient Report -- Completed (MCD/FN)
 - a. Provide clinical update and patient records to MTF/MASF personnel. (MCD/FN)
 - b. Obtain signature for patient records, X-rays, medications, supplies, and equipment being offloaded.
2. Patients -- Deplaned. (AEC)
 - a. Direct MTF/MASF in patient deplaning procedures. (MCD)
 - b. Assist with deplaning patients.
 - c. Assist LM (crew duties permitting) with deplaning passengers.
 - d. Ensure all supplies, equipment and personal belongings are offloaded with patients.

NOTE

Emergency medical equipment will remain on board and ready for use until all patients have deplaned. Individual oxygen masks will not be disconnected until all patients and attendants have been deplaned.

BEFORE LEAVING AIRPLANE.

1. Discrepancies -- Reported (AEC)
 - a. Report mission/aircraft discrepancies to the MCD. (FN)

★Table 20.1. Continued.

- b. Receive mission/aircraft discrepancy report from FN/CMT. (MCD)
- c. Report aircraft discrepancies to LM/flight engineer for documentation on aircraft forms. (MCD)
- 2. Aircraft Flying Time Forms -- Obtained (MCD)
 - a. Obtain certified "extract" copy of AFTO Form 781.
- 3. Equipment, Supplies--Removed/Stowed (AEC)
 - a. Identify and tag all inoperable AE equipment.
 - b. Properly repack and remove all medical equipment, supplies and supply kits.
 - c. Remove all professional gear and personal bags per local policy.

20.27. EXPANDED CREW DUTIES – CMT and AET. Use the expanded crew duty checklist for CMT and AET in Table 20.2.

★Table 20.2. EXPANDED CREW DUTIES – CMT and AET.

CHARGE MEDICAL TECHNICIAN.

The Charge Medical Technician (CMT) is responsible for the supervision and management of Aeromedical Evacuation Technicians assigned to perform duties on the mission. It will be the responsibility of the CMT to ensure that medical supplies and equipment are on the aircraft and installed equipment is operable. The CMT will normally receive directions from and be responsible to the MCD or their assistant and will also assist the flight crew, if required.

AEROMEDICAL EVACUATION TECHNICIAN.

AETs (2AET and 3 AET) will assist the CMT as required. The AETs provide in-flight patient care under the supervision of a qualified FN, complete appropriate forms, and perform additional duties as assigned by the CMT. The 3AET is responsible for all patient baggage procedures.

EXPANDED CREW DUTIES – CMT and AET (2AET/3AET) CHECKLIST

The abbreviated flight crew checklist will be used during all phases of the mission when accomplishing flight crew duties. If the checklist is accomplished by one or two AETs, they will accomplish all CMT/2AET/3AET duties. Duties may be delegated by the CMT. When aircraft preparation and loading are accomplished by a ground support crew, the items with an "*" WILL be briefed by ground support personnel prior to the flight crew assuming responsibility. Items with an "!" WILL be accomplished prior to takeoff for combat/contingency missions. Resume the applicable section of the checklist, once in-flight. When crew duties permit, AECMs will make every effort to assist the LM in accomplishing their passenger related duties.

INTERIOR INSPECTION.

- *1. AFTO Form 781A -- Checked (CMT)
- ! 2. Oxygen Mask, MA-1 Bottle, Goggles, EEBD -- Checked (AEC)

★Table 20.2. Continued.

<ul style="list-style-type: none"> a. MA-1 bottle serviced. b. Attach mask to MA-1 bottle and check operation. c. Ensure unit is properly secured at duty station. d. Check currency of EEBD. e. Secure all personal equipment and set up work area.
<p>! 3. LPU, EPOS, POK (As required) -- Checked (AEC)</p> <ul style="list-style-type: none"> a. Check currency of EPOS, POK. b. Ensure proper fit of LPU.
<p>*! 4. Cabin Preparation--Completed (AEC)</p> <ul style="list-style-type: none"> a. Rollers off aircraft floor and secured (As required). b. Configure aircraft for patient requirements per configuration plan, T.O. 1C-130A-9, and AFI 11-2C-130, Vol. 3, Addenda A. <ul style="list-style-type: none"> (1) Litter stanchions, straps, and brackets installed per mission requirements. (2) Seats are properly secured to the aircraft and seat belts are attached.
<p>* 5. Portable Therapeutic Liquid Oxygen -- Checked (AEC)</p> <ul style="list-style-type: none"> a. Check oxygen quantity and pressure. b. Attach oxygen hose(s), flow control device(s), and flow meter(s) and check for proper operation c. Report discrepancies to CMT.
<p>* 6. Electrical System(s) -- Checked (AEC)</p> <ul style="list-style-type: none"> a. Connect Electrical Cable Assembly Set (ECAS) to aircraft following established procedures, ensuring cord(s) are attached to appropriate outlet(s). b. Connect electrical frequency converter(s) to aircraft following established procedures. c. Medical equipment plugged in.
<p style="text-align: center;">WARNING</p> <p style="text-align: center;">Do not exceed 20 amps per 115 volt AC power outlet.</p>
<p>* 7. Suction, Bag-Valve-Mask (BVM) -- Checked (AEC)</p> <ul style="list-style-type: none"> a. Ensure suction equipment is set up and available for immediate use. b. Ensure BVM manual resuscitator is set up for immediate use. c. Report discrepancies to CMT.
<p>*! 8. Medical Supplies, Equipment – Checked, Secured (AEC)</p> <ul style="list-style-type: none"> a. Ensure medical equipment is accessible, operable, and secured.
<p style="text-align: center;">WARNING</p> <p style="text-align: center;">Do not position PTLOX adjacent to hydraulic reservoirs.</p>
<ul style="list-style-type: none"> ! b. Ensure medical equipment and supplies are secured. c. Ensure supplies are accessible.

★Table 20.2. Continued.

- d. Report discrepancies to CMT/MCD.
- * 9. Survival Equipment -- Check with LM (CMT)
 - a. Appropriate numbers and types of LPUs, EPOS, and POKs available for patients, passengers.
 - b. Ensure required numbers of casualty life preservers are available and secured on each side of the cargo compartment.
 - c. Ensure infant and child life preservers are available and secured near patients.
- * 10. Meals, Service Items -- Checked (3AET)
 - a. Check quantity with LM.
 - b. Check for special diets.
 - c. Coordinate with LM on meal service requirements.
 - d. Report discrepancies to CMT.
- 11. Aircraft Status -- Reported (AEC)
 - a. Report duties accomplished, aircraft acceptance/discrepancies to CMT. (2AET/3AET)
 - b. Report discrepancies to MCD. (CMT)

LOADING.**NOTE**

Inform MCD before leaving aircraft.

- *1. Crash/Fire/Rescue (CFR) Vehicle (As required) -- Available (CMT)
 - a. Ensure CFR vehicle is available and properly positioned.
- ! 2. Engine Running Onload (ERO) Preparations (As required) -- Completed (CMT)
 - a. Coordinate ERO activities with MCD.
 - b. Prepare cabin for ERO operations after departing the active runway.
- ! 3. Auxiliary Ground Loading Ramps -- Installed (CMT)
 - a. Coordinate with LM for vehicle movement. (As required). (CMT)
- * 4. Anti-hijacking Procedures -- As required (CMT)
 - a. Verify anti-hijacking procedures were accomplished by MTF/ASF/MASF personnel.
 - b. Perform anti-hijacking procedures if not already accomplished by MTF/ASF/MASF personnel.
- *! 5. Patients -- Enplaned (AEC)
 - a. Coordinate/direct enplaning procedures with AEC. (CMT)
 - b. Assist with enplaning patients.
 - c. Notify MCD of any changes in patient status. (CMT)
 - d. Assist LM (crew duties permitting) with enplaning of passengers.
 - e. Outside litter brackets will be secured before loading another litter.

★Table 20.2. Continued.

* 6. Baggage Procedures -- Completed (3AET)

- a. Accomplish patient baggage manifest. (As required)
- b. Assist LM with loading and securing of patient, passenger, and crew baggage.

7. Patient, Passenger Briefing Demonstration -- Completed (AEC)

- a. Assist LM with demonstration of LPUs, EPOS and POKs to ambulatory patients and passengers.
- b. Identify emergency exits.
- c. Provide individual briefings to litter patients and any other patients requiring a special briefing.

BEFORE TAXI.

! 1. Patients, Passengers -- Secured (AEC)

- a. Ensure all litter patients on left side of aircraft are secured. (CMT)
- b. Ensure all litter patients on right side of aircraft are secured. (2AET)
- c. Ensure all ambulatory patients and passengers are seated with seat belts securely fastened. (3AET)

WARNING

As a minimum, outside litter brackets will be secured before taxi.

WARNING

If not ready for taxi, immediately notify the MCD, providing estimated delay time, so the pilot will not begin taxi of aircraft.

! 2. Souls-on-Board Report -- Received (AEC)

BEFORE TAKE-OFF.

1. Patient Care--Completed (AEC)

- a. Perform pre-departure patient care as directed by MCD/FN.
- b. Check condition/comfort of patients.
- c. Notify MCD if a potential delay will occur due to patient needs. (CMT)

! 2. Cabin Secure -- Completed (AEC)

- a. Ensure all patients, supplies, equipment, baggage are secured.

WARNING

Inside litter brackets and stanchion straps will be secured before takeoff.

WARNING

CMT will immediately notify MCD if the cabin is not secure for take-off.

NOTE

Notify MCD if AECMs must stand during take-off.

! 3. Safety Belt -- Fastened (AEC)

! 4. Cabin Secure -- Received/Reported (AEC)

- a. Receive cabin secure report from 2AET/3AET. (CMT)
- b. Report cabin secure to MCD. (CMT)

★Table 20.2. Continued.**CRUISE.**

1. Patient Check -- Completed (AEC)
 - a. Observe patients during ascent.
 - b. Check patient's condition when notified it is safe to move about the cabin.
2. Patient Care -- Administered (AEC)
 - a. Assess patient's needs, perform patient care and document.
 - b. Receive direction from MCD in management/performance of patient care requirements.
 - c. Distribute comfort items and provide fluids every two hours if not contraindicated.
3. In-Flight Meal Service -- Completed (AEC)
 - a. Coordinate meal service with MCD, LM. (CMT)
 - b. Assist in distribution of meals.
 - c. Assist patients (As required).

NOTE

Meals should be served in the following order: special diets, litter patients, ambulatory patients.

4. Administrative Duties -- Completed (AET)
 - a. Complete all patient records. Document all vital signs and intake/output results.
 - b. Complete baggage manifest for off load station. (3AET)
 - c. Coordinate agriculture, border clearance, customs, and immigration requirements with LM. (3 AET)
5. Cabin Cleanliness -- Maintained (AEC)
 - a. Collect garbage after meals and prior to descent. (AET)
6. Medical Inventory -- Completed (AEC)

NOTE

Perform inventory during last sortie of the day.

DESCENT.

1. Deplaning -- Coordinated (AEC)
 - a. Coordinate deplaning procedures at en route stop and/or final destination.
 - b. Coordinate with customs, immigrations and agriculture. (3AET)
 - c. Coordinate deplaning procedures with MCD and LM. (CMT)
2. Patients -- Prepared for Landing (AEC)
 - a. Wake patients prior to descent.
 - b. Secure patients.
 - (1) Ensure all litter patients on left side of aircraft are secured. (CMT)
 - (2) Ensure all litter patients on right side of aircraft are secured. (2AET)
 - (3) Ensure all ambulatory patients and passengers are seated, seat belts fastened. (3AET)

★Table 20.2. Continued.

- c. Secure all supplies, equipment, and baggage prior to landing
- d. Observe patients during descent.

WARNING

Immediately notify the MCD if the cabin is not secure for landing.

NOTE

Notify the MCD if AECMs must stand during landing.

- 3. Safety Belt – Fastened (AEC)
- 4. Cabin Secure -- Received/Reported (AEC)
 - a. Receive cabin secure report from 2AET/3AET. (CMT)
 - b. Report cabin secure to MCD. (CMT)

OFFLOADING.**NOTE**

Inform MCD before leaving aircraft.

- 1. CFR Vehicle (As required) – Available (CMT)
 - a. Ensure CFR vehicle is available and properly positioned near aircraft.
- 2. Auxiliary Ground Loading Ramps – Installed (CMT)
 - a. Coordinate with LM for vehicle movement. (As required)
- 3. Baggage Offloading – Completed (3AET)
 - a. Assist LM with baggage offloading.
- 4. Patients – Deplaned (AEC)
 - a. Direct patient deplaning procedures. (CMT)
 - b. Ensure all supplies, equipment, and personal belongings are offloaded with patient.
 - c. Assist with deplaning patients.
 - d. Assist LM (crew duties permitting) with deplaning passengers.

NOTE

Emergency medical equipment will remain on board and ready for use until all patients have deplaned.
Individual oxygen masks will not be disconnected until all patients and attendants have deplaned.

BEFORE LEAVING AIRPLANE.

- 1. Discrepancies – Received/Reported (AEC)
 - a. Report mission and aircraft discrepancies to CMT. (2AET/3AET)
 - b. Report aircraft and patient care related discrepancies to MCD. (CMT)
- 2. Equipment, Supplies – Removed, Stowed (AEC)
 - a. Identify and tag all inoperable AE equipment.
 - b. Properly repack and remove all medical equipment, supplies and supply kits.
 - c. Remove all professional gear and personal bags.

20.28. AEC Expanded Emergency Procedures. Use the expanded checklists in **Table 20.3.** for Fuselage Fire/Smoke and Fumes Elimination, In-flight Door Warning, and Rapid Decompression. Bold text indicates BOLDFACE response. Use the Ditching Charts in Table 20.4. (MCD), Table 20.5. (FN), **Table 20.6.** (CMT), **Table 20.7.** (2AET), **Table 20.8.** (3AET). Use **Table 20.9.** for Landing with Gear Retracted.

★Table 20.3. AEC EXPANDED EMERGENCY PROCEDURES.

<p style="text-align: center;">AEC EXPANDED EMERGENCY PROCEDURES</p> <p style="text-align: center;">FUSELAGE FIRE/SMOKE AND FUMES ELIMINATION</p>	
1. OXYGEN--ON, 100 PERCENT (AEC)	
NOTE	
Emergency Escape Breathing Device (EEBD)/Protective Breathing Equipment (PBE), Passenger Oxygen Kit (POK), or Emergency Passenger Oxygen System (EPOS) may be used if oxygen mask/eye protection are not available.	
2. Crew—Alerted (AEC)	
a. Notify loadmaster/pilot (if origin of fire is in cabin) and aeromedical evacuation crew of nature of emergency.	
3. Fire--Combat as directed (AEC)	
NOTE	
The pilot/loadmaster will direct crewmembers to fight the fire as required. Crewmembers not directly involved with combating the fire will proceed with their emergency procedures checklist.	
WARNING	
Although Halon 1211 vapor has a low toxicity, its decomposition products can be hazardous. On decomposition, Halon 1211 has a characteristic sharp, acrid odor, even in concentrations of only a few parts per million. The odor provides a built-in warning system for the agent and at the same time creates a noxious, irritating atmosphere for those who are in the hazard area during and following a fire. Leave and/or ventilate area after fighting a fire.	
NOTE	
To use the Halon 1211 fire extinguisher, hold a vertical position, about eight feet from the fire. Remove the pull-ring pin and aim nozzle at base of the fire. Squeeze lever and sweep agent across base of fire.	
4. Patients/Passengers--Assist as necessary (AEC)	
a. Assist patients/passengers in donning emergency oxygen equipment.	
b. Relocate patients/passengers in the vicinity of the fire.	
c. Secure patients/passengers in preparation for Smoke and Fumes Removal procedures.	
NOTE	
Placing a wet towel or handkerchief over the nose and mouth or over the mask, when utilized, affords better protection from smoke and fumes. Relocate the patients and passengers as necessary.	

★Table 20.3. Continued.

AEC EXPANDED EMERGENCY PROCEDURES**RAPID DECOMPRESSION****1. OXYGEN – ON, 100 PERCENT. (AEC)**

- a. Pilot will direct crew to go on 100% oxygen.
- b. If directed, immediately don nearest available emergency oxygen mask.

2. Crewmember - Secured (As Required).(AEC)

a. If structural damage or aircraft flight maneuvers preclude personnel safety without a seat belt, aeromedical evacuation crewmembers will make every effort to secure themselves in any available seat until it is safe to move about the cabin. If in the litter section, hold on to the nearest litter stanchion or aircraft structure.

b. If rapid decompression is not accompanied by unusual aircraft movements, aeromedical evacuation crewmembers will continue with the checklist.

3. Patients/Passengers – Assist, As Necessary. (AEC)

- a. When it is safe to move about, check patients/passengers and assist them with their oxygen source.
- b. Ensure all patients/passengers are secured.

IN-FLIGHT DOOR WARNING**1. Oxygen--As Required. (AEC)**

a. The pilot will direct all crewmembers to don oxygen (as appropriate) and to select 100% on their oxygen regulators.

2. Crew—Notified (AEC)**3. Patients/Passengers—Secured (AEC)**

- a. Ensure patients and passengers are on oxygen, as necessary.

4. Crewmembers—Secured (AEC)**EMERGENCY SIGNALS****GROUND EVACUATION**

- a. Abandon airplane – one long sustained ring.

DITCHING or CRASH LANDING

- a. Prepare for ditching or crash landing – six short rings.
- b. Brace for impact – one long sustained ring.

Table 20.4. DITCHING CHART--MCD

FIRST ACTION MEDICAL CREW DIRECTOR (MCD)	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER DITCHING
<ol style="list-style-type: none"> 1. Acknowledge pilot's order to prepare for ditching. Reconfirm egress with LM. 2. Brief AEC. <ol style="list-style-type: none"> a. Any special instructions from pilot. b. Coordinate which litter patients will be moved to seats. 3. Don life preserver. 4. Inflate LPU 6/P (Infant Cot). 5. Brief patients on left side of aircraft on evacuation procedures. <ol style="list-style-type: none"> a. Identify emergency exits to be used and order in which to evacuate. b. Position to assume at the "Brace for Impact" signal (one long sustained ring on alarm bell). <ol style="list-style-type: none"> (1) Side facing troop seats - lean forward, place hands behind neck and pull head to knees; elbows should be outside of knees. (2) Litters - lie flat, grasp sides of litter tightly. c. Inflate life preservers after leaving aircraft. 6. Prepare and secure litter and ambulatory patients on left side of aircraft. <ol style="list-style-type: none"> a. Assist CMT with positioning patients, checking litter straps and litter support systems on left side of aircraft. 	<ol style="list-style-type: none"> 1. Check patients. Ensure patients on left side of aircraft are behind cargo, if possible. 2. Take assigned seat. 3. Fasten seat belt. 	<ol style="list-style-type: none"> 1. Medical supplies, medications, equipment. 2. Flash-light. 3. Patient manifest. 	<ol style="list-style-type: none"> 1. Assigned seat. 	<ol style="list-style-type: none"> 1. Direct and assist patient and passenger egress through aft escape hatch or as directed by LM; ambulatory followed by litter. 2. Evacuate aircraft and inflate life preserver. 3. Board life raft.

Table 20.4. Continued.

FIRST ACTION MEDICAL CREW DIRECTOR (MCD)	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER DITCHING
<p>(1) Remove sharp objects, high heels, ties; loosen collars, tight fitting clothing.</p> <p>(2) Place sharp objects and loose items in large plastic bag and secure. Remove eyeglasses and dentures, pad and secure on individual.</p> <p>(3) Position litter patients in seats and evacuate as ambulatory (if condition permits).</p> <p>b. Apply extra padding and litter straps to litter patients.</p> <p>c. Move litters to lower tier spaces.</p> <p>d. Remove IV lines, catheters, etc. that may impede egress.</p> <p>e. Assist patients in donning life preservers.</p> <p>7. Distribute medical supplies, medications, and equipment crewmembers. As a minimum collect narcotics, oral airways, Bag-Valve-Mask resuscitator, flashlight and patient manifest.</p> <p>8. Secure cabin.</p> <p>a. Secure patients and passengers on left side of aircraft; check seat belts.</p> <p>b. Secure small children with extra litter straps and pad with pillows and blankets as required.</p> <p>c. Secure all loose articles and equipment.</p> <p>9. Receive cabin secured report from FN/CMT.</p> <p>10. Report cabin secured to LM.</p>				

★Table 20.5. DITCHING CHART –FN.

FIRST ACTION FLIGHT NURSE (FN)	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER DITCHING
<ol style="list-style-type: none"> 1. Don life preserver. 2. Inflate LPU 6/P (Infant Cot). 3. Brief patients on right side of aircraft on evacuation procedures. <ol style="list-style-type: none"> a. Identify emergency exits to be used and order in which to evacuate. b. Position to assume at the "Brace for Impact" signal (one long sustained ring on alarm bell). <ol style="list-style-type: none"> (1) Side facing troop seats - lean forward, place hands behind neck and pull head to knees; elbows should be outside of knees. (2) Litters - lie flat, grasp sides of litter tightly. c. Inflate life preservers after leaving aircraft. 4. Prepare and secure litter and ambulatory patients on right side of aircraft. <ol style="list-style-type: none"> a. Assist 2AET with positioning patients, checking litter straps and litter support systems on right side of aircraft. <ol style="list-style-type: none"> (1) Remove sharp objects, high heels, ties; loosen collars, tight fitting clothing. (2) Place sharp objects and loose items in large plastic bag and secure. Remove eyeglasses and dentures, pad and secure on individual. (3) Position litter patients in seats and evacuate as ambulatory (if condition permits). 	<ol style="list-style-type: none"> 1. Check patients. Ensure patients on right side of aircraft are behind cargo, if possible. 2. Take assigned seat. 3. Fasten seat belt. 	<ol style="list-style-type: none"> 1. Medical supplies, medications, equipment. 2. Flash-light. 	<ol style="list-style-type: none"> 1. Assigned seat. 	<ol style="list-style-type: none"> 1. Evacuate aircraft through center escape hatch or as directed by LM and inflate life preserver. 2. Assist patients and passengers in boarding life rafts. 3. Board life raft.

★Table 20.5. Continued.

FIRST ACTION FLIGHT NURSE (FN)	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER DITCHING
<p>b. Apply extra padding and litter straps to litter patients.</p> <p>c. Move litters to lower tier spaces.</p> <p>d. Remove IV lines, catheters, etc. that may impede egress.</p> <p>e. Assist patients in donning life preservers.</p> <p>5. Distribute medical supplies, medications, and equipment to crewmembers. At a minimum collect narcotics, oral airways, Bag-Valve-Mask resuscitator and flashlight.</p> <p>6. Secure cabin.</p> <p>a. Secure patients and passengers on right side of aircraft; check seat belts.</p> <p>b. Secure small children with extra litter straps and pad with pillows and blankets as required.</p> <p>c. Secure all loose articles and equipment.</p> <p>7. Report cabin secured to MCD.</p>				

★Table 20.6. DITCHING CHART--CMT.

FIRST ACTION CHARGE MEDICAL TECHNICIAN (CMT)	DITCHING IMMINENT (10 Minutes Left)	PROVIDE	POSITION	AFTER DITCHING
<p>1. Don life preserver.</p> <p>2. Inflate LPU 6/P (Infant Cot).</p> <p>3. Brief patients on left side of aircraft on evacuation procedures.</p> <p style="padding-left: 40px;">a. Identify emergency exits to be used and order in which to evacuate.</p> <p style="padding-left: 40px;">b. Position to assume at the "Brace for Impact" signal (one long sustained ring on alarm bell).</p> <p style="padding-left: 80px;">(1) Side facing troop seats - lean forward, place hands behind neck and pull head to knees; elbows should be outside of knees.</p> <p style="padding-left: 80px;">(2) Litters - lie flat, grasp sides of litter tightly.</p> <p style="padding-left: 40px;">c. Inflate life preservers after leaving aircraft.</p> <p>4. Prepare and secure litter and ambulatory patients on left side of aircraft.</p> <p style="padding-left: 40px;">a. Assist MCD with positioning patients, checking litter straps and litter support systems on left side of aircraft.</p> <p style="padding-left: 80px;">(1) Remove sharp objects, high heels, ties; loosen collars, tight fitting clothing.</p> <p style="padding-left: 80px;">(2) Place sharp objects and loose items in large plastic bag and secure. Remove eyeglasses and dentures; pad and secure on individual.</p> <p style="padding-left: 80px;">(3) Position litter patients in seats and evacuate as ambulatory (if condition permits).</p>	<p>1. Check patients. Ensure patients on left side of aircraft are behind cargo, if possible.</p> <p>2. Take assigned seat.</p> <p>3. Fasten seat belt.</p>	<p>1. Medical supplies, medications, equipment.</p> <p>2. First aid kit.</p> <p>3. Flash-light.</p>	<p>1. Assigned seat.</p>	<p>1. Evacuate aircraft through aft escape hatch or as directed by LM and inflate life preserver.</p> <p>2. Assist patients and passengers in boarding life rafts</p> <p>3. Board life raft.</p>